

Pregnancy Risk Assessment Monitoring System

# 2010 Annual Report

Texas Department of State Health Services Division of Family and Community Health Services Office of Program Decision Support



### 2010 Annual Report Texas Pregnancy Risk Assessment Monitoring System

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#### **PREFACE**

The Pregnancy Risk Assessment Monitoring System (PRAMS) is a surveillance system designed to monitor maternal attitudes and behaviors before, during, and after pregnancy. In partnership with the Centers for Disease Control and Prevention (CDC) and the Texas Department of State Health Services (DSHS), Texas PRAMS is a population-based assessment that monitors the health and behaviors of new mothers in Texas. It provides up-to-date information regarding preconception, pregnancy, and birth trends, and serves as an excellent resource for those seeking to learn more about and develop policy related to pregnancy and early infancy.

This document was developed to provide an overview of the data collected during the 2010 calendar year from a sample that represents all live births to women in Texas. After an introduction to the history of PRAMS and the data collection methodology that it utilizes, data are presented on pregnancy intention, contraceptive use, multivitamin use and folic acid knowledge, substance use (alcohol and tobacco), intimate partner violence, prenatal care, delivery (labor induction and cesarean section), breastfeeding, oral health, infant health and safety, and maternal postpartum experiences.

#### **BACKGROUND**

For most of the 20<sup>th</sup> century, rates of infant mortality and low birth weight dropped steadily. During the 1980s these rates leveled off and showed no further significant decreases. In 1987, the CDC developed PRAMS to monitor infant mortality and morbidity rates, to help understand perinatal trends, and to examine certain maternal attitudes and behaviors for their role as contributing factors to infant outcomes.

In a partnership between the CDC and state health departments, PRAMS was originally implemented in six health departments and now includes 41 states and New York City. For each state, the data collected are population-based and are representative of the entire state's population. Texas became a PRAMS state in 2002. Since then, the questionnaire has addressed many topics, including pregnancy intention, contraceptive use, prenatal care, substance use (alcohol and tobacco), physical abuse, pregnancy-related morbidities, breastfeeding, infant health care and safety, and mothers' knowledge of pregnancy-related health issues, such as adverse effects of tobacco and alcohol use and benefits of folic acid. These data represent an excellent opportunity to assess the health and well-being of new mothers and their infants in Texas.

There is evidence that a number of factors associated with maternal behavior and attitudes can lead to adverse pregnancy outcomes and poor infant health. PRAMS data serve as a valuable resource to researchers and policymakers interested in how maternal attitudes and behaviors are associated with infant mortality and morbidity trends in Texas. PRAMS can help to identify groups of women at high-risk for adverse pregnancy outcomes or that should be the focus of targeted policy and interventions. PRAMS also supplements data available on birth certificate records by providing more indepth information that is not otherwise available at the state level.

#### METHODOLOGY

The PRAMS study population includes all women with a live birth<sup>1</sup> delivering in Texas in a given year. Each month, a complete file of recent Texas births is obtained from DSHS vital statistics. A stratified sample of approximately 200 mothers per month is selected from the birth file based on race/ethnicity and infant birth weight. Race/ethnicity is divided into three categories of women: Hispanic, non-Hispanic Black, and non-Hispanic White/Other.<sup>2</sup> Infant birth weight is divided into low birth weight (less than 2,500 grams) and normal birth weight (greater than or equal to 2,500 grams).

Sampled women are recruited to participate in PRAMS through two modes of data collection – mail and telephone. In the first phase, women are contacted through the mail when their infants are approximately 60 to 90 days old. They receive a letter that introduces the PRAMS project and encourages their participation. They are notified that they will be contacted through follow-up mailings that will include a copy of the PRAMS survey. In the six weeks following receipt of the introductory letter, women receive a survey they can complete and return. Women who fail to respond receive two subsequent mailings. The mailed surveys include an infant forehead thermometer as an incentive for completion. The majority of responses are collected by mail.

Women who do not return the survey through the mail are advanced into the telephone phase of data collection, which begins after the last mailed survey packet is sent. Over a six-week period, women are called and encouraged to complete the survey over the phone. There are up to 15 call attempts for each phone number provided before ceasing call attempts for a sample member. During all communication, women are informed that their participation is voluntary and that their data will remain confidential and anonymous.

All women have the option of completing the survey in English or Spanish. Women who complete the survey (via mail or telephone) receive a reward in the form of a \$10 gift certificate to Target or Walmart.

In Texas, there are two versions of the survey – one for adults and one for minors (under 18 years of age). The only difference is that survey for minors does not include questions related to physical abuse. Because child abuse reporting laws in Texas apply to PRAMS project staff, CDC allows abuse questions to be omitted from the survey that is sent to minors.

Though the sample is pulled from the birth record of all live births, there are instances of infant death between birth and recruitment for the project. Staff members and project documents are sensitive to this possibility. These women are still encouraged to participate and they often have high rates of participation.

After all attempts are made to collect completed surveys from sampled women, the monthly data files are compiled into an annual file and sent to the CDC for cleaning and weighting. To make the data representative of all live births in Texas, the CDC calculates an analysis weight for each respondent. The analysis weight can be interpreted as the number of women in the population that each individual respondent represents. It consists of a sampling weight, a nonresponse weight, and a frame noncoverage weight. For further details about the weighting process used, refer to the CDC PRAMS web page titled "Detailed PRAMS methodology" at http://www.cdc.gov/prams/methodology.htm. The finalized PRAMS dataset contains survey variables, operational variables (such as method of survey completion), and linked birth certificate variables, including demographics and medical risk factors.

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<sup>&</sup>lt;sup>1</sup> Adoptive mothers are excluded from the sample. Additionally, the sampling procedures include coding that randomly selects only one infant from a multiple gestation. Multiple births of four or more are excluded. <sup>2</sup> In this report, White and Other race/ethnicity were analyzed separately.

#### 2010 BORDER OVERSAMPLE

For the 2010 birth year, Texas PRAMS received funding from the Health Resources and Services Administration (HRSA) State System Development Initiative (SSDI) grant to oversample women residing in Texas border counties. The DSHS border area is defined as the area within 100 kilometers (or 62 miles) of the Rio Grande in the La Paz Agreement of 1986, and it includes 32 Texas border counties and Mexico.<sup>3</sup> The Texas border area is rapidly growing and predominantly populated by Hispanics/Latinos. In 2010 the population of the 32 Texas border counties was 2,602,102, a 22 percent increase since the year 2000.<sup>4</sup> Overall, approximately 87 percent of the Texas border population is Hispanic/Latino.<sup>2</sup> This population tends to be younger, mobile, and has higher birth rates. The Texas border counties are some of the poorest counties in the United States, with a population that has complex health and social issues. The majority of the Texas border area is also medically underserved. The addition of a border oversample by Texas PRAMS is a unique and needed contribution to information on maternal and infant health in this population.

#### THE 2010 TEXAS PRAMS SURVEY

The 2010 Texas PRAMS survey includes 72 questions. All questions undergo extensive validity and reliability checks before they are included in the survey. There are two types of questions: "core" questions that must be asked by all states and "standard" questions chosen by states from a pretested list of questions developed by the CDC or developed by states on their own.

The PRAMS questionnaire is revised every three to four years. States have the option of updating their standard questions just prior to each new revision or "phase." Standard questions are selected based on input from the Texas PRAMS Steering Committee and subject matter experts within DSHS. Within each phase, all questions remain the same. Texas has participated in Phase 4 (years 2002-2003), Phase 5 (years 2004-2008), and Phase 6 (years 2009-2011) of PRAMS. This report is not inclusive of all questions in the Texas PRAMS survey, as the survey covers more than can be concisely addressed here (refer to the questionnaire in the appendix to review all survey questions). Rather, it serves as a general overview of the 2010 Texas PRAMS data.

#### HOW TO READ TABLES

SAS® software version 9.2 was used for all analyses, and appropriate statements were used to account for the complex sampling scheme of PRAMS. For each health indicator, descriptive statistics are reported overall; by maternal sociodemographic characteristics (race/ethnicity, age, annual household income, education, marital status, Medicaid status, residency (border vs. nonborder); and by infant characteristics (birth weight and gestational age). Detailed tables display prevalence estimates, standard errors, 95 percent confidence intervals, frequencies, and population estimates. Understanding the following terms will help interpret the data presented in the tables.

- **Prevalence:** the estimated percent of Texas women with the specified indicator.
- Standard error: a measure of the sampling variability among all possible samples that could have been drawn from the sampling frame (birth certificate file). If all possible samples were drawn, then some would result in larger estimates and some would result in

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<sup>&</sup>lt;sup>3</sup> Texas Department of State Health Services, Office of Border Health. Map of DSHS Border Area. Accessed on March 16, 2012 at http://www.dshs.state.tx.us/borderhealth/border health map.shtm.

<sup>&</sup>lt;sup>4</sup> Texas State Data Center. Census 2010 Data. Accessed on March 16, 2012 at http://txsdc.utsa.edu/Data/Decennial/2010/Index.aspx

- smaller estimates. The standard error is an average "distance" of each estimate from the true population parameter. A larger sample size will result in a smaller standard error (and more reliable results), because the larger the sample size, the closer the sample is to the actual population.
- **95 Percent Confidence Interval:** each confidence interval presented here is a measure of the precision of its associated prevalence. Since the prevalence was calculated from a sample of the population, it is an *estimate* of the true value of the population parameter. A larger sample size will result in a more precise estimate, and thus, a narrower confidence interval. If confidence intervals do *not* overlap, then there is a statistically significant difference between the statistics (in this case, the estimated prevalence). However, if confidence intervals *do* overlap, then there may or may not be a statistically significant difference between the statistics. Chi-square tests were run for all tables, and *p*-values are presented for those subgroups with overlapping confidence intervals that have a *p*-value of less than 0.05 (i.e., where there is a statistically significant difference). It is important to note that statistical significance does not necessarily mean that the results are more important, as it is as much a function of sample size and experimental design as it is a function of the strength of a relationship.
- **Respondents:** the total number of women who responded to the question. In some cases, mothers who completed the survey did not respond to all questions. Missing data for non-response were not included in analyses.
- **Estimated population affected:** the estimated number of Texas women with the specified indicator.

#### LIMITATIONS

It is important to understand the limitations of PRAMS data. These limitations may contribute to unreliable estimates, as well as variations in prevalence when comparing PRAMS to other data sources such as birth certificate data. One limitation inherent to self-reported survey data is the potential for recall bias and/or misinterpretation of questions.

Additionally, overall and stratum-specific response rates for PRAMS must be 65 percent or higher to meet the suggested CDC guidelines for minimal non-response bias. States not meeting this minimum response rate threshold are not included in the national PRAMS sample. In 2010, Texas met this threshold with an overall response rate of 65 percent.

For PRAMS, the minimum number of respondents needed for any subpopulation analysis is 30 respondents plus the number of strata in the survey. Since Texas has six strata, a minimum number of 36 respondents in a subpopulation is needed in order to make statistical inference to that subpopulation. Lower sample sizes for certain subpopulations result in less precise estimates (and wider confidence intervals). In some cases the confidence intervals may be too wide to be useful for health planning. In these instances multiple years of data may need to be combined to obtain a larger sample size, and therefore, more stable estimates. Lastly, the results presented in this report are unadjusted (i.e., not controlling for any other variables).

#### OVERALL SAMPLE DESCRIPTION

The 2010 Texas PRAMS sample included 1,763 women who responded to the survey (65 percent weighted response rate). Maternal demographic characteristics and infant characteristics are displayed in Table 1. Approximately 50 percent of women were Hispanic, 39.6 percent were non-Hispanic White or Other, and 11.2 percent were Black. Almost one-quarter of women (23.3 percent) were 20-24 years of age, and 50.1 percent were 25-34 years of age. Over 50 percent of women reported an annual household income below \$25,000 per year. About 48 percent had attended at least some college, while 28 percent were high school graduates but had not attended college, and approximately one-quarter had less than 12 years of education. Almost 60 percent of women were married, and over one-half (56.2 percent) reported that their delivery was paid by Medicaid. Approximately 14 percent of women resided in the Texas border area.

Infants born preterm (less than 37 weeks gestation) and those with low birth weight (weighing less than 2,500 grams) accounted for 10.8 percent and 7.5 percent of all births, respectively. These estimates were near the population parameters. Texas birth certificate data for 2010 indicated that preterm deliveries accounted for 13.0 percent of all births and low birth weight infants accounted for 8.4 percent of all births.<sup>5</sup>

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<sup>&</sup>lt;sup>5</sup> 2010 Natality File, Texas Department of State Health Services

Table 1. Sociodemographic Characteristics of Texas PRAMS Women, 2010

Characteristics	Prevalence	Standard		nfidence rval	Respondents	Estimated
	(%)	Error	Lower	rvai Upper	(N=1763)	Population
MATERNAL				FF		
Race/ethnicity						
White	34.3	0.6	33.1	35.5	500	129,925
Black	11.2	0.1	11.0	11.4	389	42,477
Hispanic	49.3	0.2	48.9	49.6	783	186,676
Other	5.3	0.6	4.1	6.4	90	19,920
Age (years)						
<u>≤</u> 17	4.6	0.6	3.4	5.9	86	17,497
18-19	8.1	0.8	6.5	9.7	148	30,646
20-24	23.3	1.3	20.8	25.9	428	88,468
25-34	50.1	1.5	47.1	53.0	845	189,776
<u>≥</u> 35	13.9	1.1	11.8	16.0	256	52,667
Annual Household Income						
<\$15 <b>K</b>	37.7	1.5	34.8	40.6	682	134,085
$\geq$ \$15K to <\$25K	16.7	1.2	14.4	19.1	265	59,489
	16.8	1.2	14.4	19.2	268	59,749
≥\$50K	28.7	1.3	26.3	31.2	427	102,092
Education (years)						
<12	24.5	1.3	22.0	27.0	443	92,751
12	27.8	1.4	25.1	30.6	474	105,336
>12	47.7	1.4	44.9	50.5	845	180,627
Marital Status						
Married	57.9	1.5	55.0	60.9	969	219,595
Unmarried	42.1	1.5	39.1	45.0	794	159,460
Medicaid Recipienta						
No	43.8	1.5	40.9	46.6	716	163,846
Yes	56.2	1.5	53.4	59.1	1024	210,578
<b>Border Resident</b>						
No	86.4	0.7	85.1	87.7	1312	327,542
Yes	13.6	0.7	12.3	14.9	451	51,513
INFANT						
Birth Weight	7.5	0.0	7.5	7.6	391	28,612
Low (<2500 g)	92.5	0.0	92.4	92.5	1372	350,443
Normal ( <u>&gt;</u> 2500g)						
Gestational Age						
< 37 Weeks (preterm)	10.8	0.7	9.4	12.3	356	40,965
≥ 37 Weeks	89.2	0.7	87.7	90.6	1407	338,090

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

#### PREGNANCY INTENTION

The CDC defines an unintended pregnancy as one that is mistimed (wanted later) or unwanted at the time of conception, and an intended pregnancy as one that is wanted at the time of conception or sooner. Understanding unintended pregnancy is essential to understanding fertility, ways to prevent unwanted pregnancies, and assessing unmet needs for contraception.<sup>6,7</sup> Unintended pregnancy has been associated with an increased risk of maternal morbidity and negative health behaviors during pregnancy, such as alcohol and tobacco use and delayed prenatal care, which can have adverse health effects on infants.<sup>8</sup>

PRAMS is one of the best sources of data on unintended pregnancy. The Texas PRAMS survey asks the following question: "Thinking back to *just before* you got pregnant with your *new* baby, how did you feel about becoming pregnant?" The response options are: "I wanted to be pregnant sooner" (intended); "I wanted to be pregnant later" (mistimed); "I wanted to be pregnant then" (intended); and "I didn't want to be pregnant then or at any time in the future" (unwanted).

Overall, approximately 53.2 percent of pregnancies were intended (Table 2). Women of White and Other race/ethnicity had the highest rates of intended pregnancy, at 61.4 percent and 68.7 percent, respectively. Black women were significantly less likely than all other race/ethnicity groups to report an intended pregnancy, at 39.1 percent. There was a general increase in pregnancy intention with increasing age and income. Women aged 25 years and older and those with an annual household income of \$50,000 per year or more had significantly higher rates of intended pregnancy. The following groups of women were also significantly more likely to report an intended pregnancy: those with more than 12 years of education (61.6 percent); those who were married (65.3 percent); and those who did not have their delivery paid by Medicaid (65.9 percent). Border residents had a significantly lower rate (46 percent) of intended pregnancy than non-border residents (54.4 percent).

Overall, approximately 47 percent of pregnancies were unintended—with 38.3 percent mistimed (Table 3) and 8.4 percent unwanted (Table 4). Black and Hispanic women had higher rates of mistimed pregnancies, at 45.4 percent and 43.3 percent, respectively, when compared with women of White (30.7 percent) and Other (25 percent) race/ethnicity. The mistimed pregnancy rate generally increased with decreasing age and income. Women aged 19 and younger (72 percent) were approximately four times as likely to report a mistimed pregnancy when compared to women aged 35 and older (16.8 percent). Women who were unmarried and those who had their delivery paid by Medicaid were also significantly more likely to report a mistimed pregnancy.

The unwanted pregnancy rate was significantly higher among Black women, at 15.5 percent, when compared with White (7.9 percent) and Hispanic (7.4 percent) women (Table 4). Among the different age groups, the oldest (35 years of age and older) women reported the highest rate of unwanted pregnancy, at 17.5 percent. Unwanted pregnancy rates decreased with increasing

<sup>&</sup>lt;sup>6</sup> Santelli J, Rochat R, Hatfield-Timajchy K, et al. The measurement and meaning of unintended pregnancy. *Perspectives on Sexual and Reproductive Health.* 2003: 35; 94-101.

<sup>&</sup>lt;sup>7</sup> Centers for Disease Control and Prevention. Unintended pregnancy prevention home page. Accessed on February 15, 2012, at http://www.cdc.gov/reproductivehealth/unintendedpregnancy/index.htm.

<sup>&</sup>lt;sup>8</sup> Finer L, Kost K. Unintended pregnancy rates at the state level. *Perspectives on Sexual and Reproductive Health.* 2011: 43; 78-87.

income and education. Women with the highest annual household income level had the lowest rate of unwanted pregnancy, at 4.1 percent, compared with 11.4 percent for those with the lowest income level. Additionally, unmarried women (11.1 percent) and those who had their delivery paid by Medicaid (10.2 percent) were significantly more likely to report an unwanted pregnancy.

Table 2. Characteristics of Women Reporting Intended Pregnancies, Texas PRAMS 2010

Characteristics	Prevalence (%)	Standard Error	Inte	onfidence erval	Respondents (N=1763)	Estimated Population	
			Lower	Upper		Affected	
MATERNAL							
Overall	53.2	1.5	50.2	56.2	1,746	199,955	
Race/Ethnicity*							
White	61.4	2.5	56.5	66.3	495	78,723	
Black	39.1	2.5	34.2	44.0	383	16,368	
Hispanic	49.2	2.4	44.4	54.0	779	91,437	
Other	68.7	5.5	57.8	79.6	88	13,428	
Age (years)*							
<u>≤</u> 17	26.0	6.5	13.2	38.8	85	4,459	
18-19	17.7	3.6	10.6	24.8	145	5,290	
20-24	44.5	3.2	38.1	50.8	426	39,137	
25-34	62.0	2.1	57.9	66.2	837	116,965	
≥35	65.7	4.0	57.9	73.5	253	34,105	
Annual Household Income*							
<\$15K	42.0	2.6	36.9	47.0	673	55,510	
≥\$15K to <\$25K	44.0	4.0	36.1	51.9	265	26,168	
≥\$25K to <\$50K	52.5	4.0	44.7	60.4	266	31,278	
	74.0	2.6	69.0	79.1	423	74,751	
Education (years)*						,	
<12	42.9	3.1	36.8	49.1	441	39,621	
12	47.9	3.1	42.0	53.9	468	49,884	
>12	61.6	2.1	57.4	65.7	836	110,110	
Marital Status*						,	
Married	65.3	1.9	61.5	69.1	961	141,909	
Unmarried	36.7	2.3	32.1	41.3	785	58,046	
Medicaid Recipient <sup>a</sup> *	2017		02.1		, 00	20,010	
No	65.9	2.2	61.6	70.2	709	107,081	
Yes	42.9	2.1	38.8	47.0	1,014	89,467	
Border Resident <sup>†</sup>	12.9	2.1	20.0	17.0	1,011	05,107	
No	54.4	1.7	51.1	57.7	1,298	176,389	
Yes	46.0	3.2	39.7	52.2	448	23,566	
INFANT	40.0	3.2	37.1	32.2	770	23,300	
Birth Weight							
Low (<2500 g)	52.9	2.6	47.8	57.9	388	14,981	
Normal (>2500 g)	53.3	1.6	50.1	56.5	1,358	184,974	
Gestational Age	55.5	1.0	50.1	50.5	1,330	107,7/4	
<37 Weeks (preterm)	55.9	3.7	48.6	63.2	353	22,591	
≥37 Weeks (preterm) ≥37 Weeks	52.9	3.7 1.7	48.6 49.7	56.2	1,393	177,365	
<sup>a</sup> Delivery paid by Medicaid	34.9	1./	47./	30.2	1,373	177,303	

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

**Prevalence:** Estimated percent of Texas women with the specified indicator.

**Respondents:** Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

Table 3. Characteristics of Women Reporting Mistimed Pregnancies, Texas PRAMS 2010

Characteristics	Prevalence (%)	Standard Error		5% Confidence Interval Respondents (N=1763)		Estimated Population	
	(70)	EITOI	Lower	Upper	(N=1703)	Affected	
MATERNAL							
Overall	38.3	1.5	35.4	41.3	1,746	144,009	
Race/Ethnicity*							
White	30.7	2.4	26.1	35.4	495	39,408	
Black	45.4	2.6	40.4	50.5	383	19,003	
Hispanic	43.4	2.4	38.7	48.2	779	80,661	
Other	25.0	5.1	14.9	35.1	88	4,881	
Age (years)*							
<u>≤</u> 17	66.1	6.9	52.5	79.7	85	11,340	
18-19	72.0	4.4	63.3	80.8	145	21,516	
20-24	47.7	3.2	41.4	54.0	426	41,969	
25-34	32.1	2.1	28.0	36.1	837	60,465	
≥35	16.8	3.2	10.6	23.0	253	8,720	
Annual Household Income*							
<\$15K	46.6	2.6	41.5	51.7	673	61,639	
$\geq$ \$15K to <\$25K	47.7	4.0	39.8	55.6	265	28,384	
$\geq$ \$25K to <\$50K	40.3	4.0	32.5	48.0	266	23,984	
≥\$50K	21.9	2.5	17.1	26.7	423	22,085	
Education (years)*							
<12	45.7	3.2	39.5	51.9	441	42,184	
12	42.2	3.0	36.3	48.2	468	43,933	
>12	32.4	2.0	28.4	36.4	836	57,892	
Marital Status*							
Married	28.3	1.8	24.7	31.9	961	61,535	
Unmarried	52.2	2.4	47.5	56.9	785	82,474	
Medicaid Recipient <sup>a</sup> *							
No	28.1	2.1	24.0	32.2	709	45,624	
Yes	46.8	2.1	42.7	50.9	1,014	97,597	
<b>Border Resident</b>							
No	37.7	1.7	34.4	41.0	1,298	122,236	
Yes	42.5	3.3	36.0	48.9	448	21,773	
INFANT							
Birth Weight							
Low (<2500 g)	36.6	2.5	31.8	41.5	388	10,384	
Normal (≥2500g)	38.5	1.6	35.3	41.6	1,358	133,625	
Gestational Age							
<37 Weeks (preterm)	37.2	3.7	30.0	44.4	353	15,018	
≥37 Weeks	38.5	1.6	35.3	41.7	1,393	128,992	

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

Table 4. Characteristics of Women Reporting Unwanted Pregnancies, Texas PRAMS 2010

Characteristics	Prevalence (%)	Standard Error		onfidence erval	Respondents (N=1763)	Estimated Population
	(70)		Lower	Upper	(11–1700)	Affected
MATERNAL						
Overall	8.4	0.8	6.8	10.0	1,746	31,558
Race/Ethnicity*						
White	7.9	1.4	5.2	10.6	495	10,135
Black	15.5	1.9	11.8	19.1	383	6,470
Hispanic	7.4	1.2	5.0	9.8	779	13,721
Other	6.3	2.9	0.6	12.0	88	1,232
Age (years)*						
<u>≤</u> 17	7.9	3.7	0.7	15.2	85	1,358
	10.2	3.0	4.4	16.1	145	3,061
20-24	7.9	1.5	4.9	10.9	426	6,913
25-34	5.9	1.0	4.1	7.8	837	11,151
≥35	17.5	3.2	11.2	23.8	253	9,073
Annual Household Income*						- ,
<\$15K	11.4	1.6	8.3	14.6	673	15,139
≥\$15K to <\$25K	8.3	2.0	4.3	12.3	265	4,937
$\geq$ \$25K to $<$ \$50K	7.2	1.9	3.5	10.8	266	4,269
≥\$50K	4.1	1.1	2.0	6.3	423	4,168
Education (years) <sup>†</sup>	2		2.0	0.0		.,100
<12	11.4	2.0	7.4	15.4	441	10,505
12	9.8	1.5	6.8	12.8	468	10,222
>12	6.1	1.0	4.1	8.0	836	10,830
Marital Status*	0.1	1.0	7.1	0.0	030	10,030
Married	6.4	1.0	4.5	8.3	961	13,950
Unmarried	11.1	1.4	8.4	13.8	785	17,607
Medicaid Recipient <sup>a†</sup>	11.1	1.4	0.4	13.0	765	17,007
No	6.0	1.1	3.9	8.2	709	9,773
Yes	10.2	1.1	7.9	12.6	1,014	21,348
Border Resident	10.2	1.2	7.9	12.0	1,014	21,348
	7.9	0.0	( )	0.6	1 200	25,620
No		0.9	6.2	9.6	1,298	,
Yes	11.6	2.3	7.0	16.2	448	5,937
INFANT						
Birth Weight	10.5	4.6	7.0	10.6	200	2000
Low (<2500 g)	10.5	1.6	7.3	13.6	388	2,969
Normal (≥2500g)	8.2	0.9	6.5	9.9	1,358	28,589
Gestational Age						
<37 Weeks (preterm)	6.9	1.4	4.3	9.6	353	2,808
≥37 Weeks	8.6	0.9	6.8	10.3	1,393	28,750

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

#### CONTRACEPTION USE AT THE TIME OF PREGNANCY

Overall, 24.5 percent of women reported using contraception when they got pregnant (data not shown). Unwanted and mistimed pregnancies often result from irregular use of, or failure to use, contraceptives. It is important to understand why women did not use, or improperly used, contraception even though they were not trying to get pregnant. The PRAMS survey asked, "When you got pregnant with your new baby, were you trying to get pregnant?" Approximately 46 percent responded that they *were* trying to get pregnant, and approximately 54 percent responded that they were *not* trying to get pregnant (data not shown).

Of the women who reported that they were *not* trying to get pregnant, 54.7 percent said that they were *not* doing anything to keep from getting pregnant. Among these women, the three most common reasons for not using contraception were that they did not mind if they got pregnant (39.0 percent); they thought they could not get pregnant at the time (35.3 percent); and/or their husband/partner did not want to use contraception (22.4 percent) (Figure 1). Approximately 12.7 percent of women reported that they had problems acquiring birth control when they needed it.

Didn't mind getting pregnant 39.0 Thought I couldn't get pregnant at the time Husband/partner didn't want to use anything 13.1 Other Had problems acquiring birth control 12.7 Thought husband/partner or I was sterile 11.6 Had side effects from the birth control I was using 10.8 10 20 30 40 50 60 70 80 90 100 Prevalence (%)

Figure 1. Reported Reasons for Not Using Contraception Before Pregnancy, Texas PRAMS 2010

Note: Percentages will not add to 100 because respondents can check more than one reason.

#### VITAMINS AND FOLIC ACID

Vitamins and minerals help give our bodies the nutrients they need to stay healthy and repair damage. The best way to get vitamins is through a healthy diet. This is not always easy; therefore, it may be necessary to take a supplement. For pregnant women, this is especially important. Prenatal vitamins are recommended because they contain folic acid and other important nutrients needed during pregnancy.<sup>9</sup>

Folic acid is a B vitamin that helps the body produce healthy new cells. Everyone needs folic acid, but it is especially important for pregnant women. When a woman has enough folic acid in her body *before* she conceives, it can help prevent neural tube defects (birth defects of the baby's brain or spinal column). The CDC urges women to take 400 micrograms of folic acid every day, starting at least one month before getting pregnant, to help prevent neural tube defects. <sup>10, 11</sup> To ensure adequate folic acid intake, women can take a vitamin every day with 100 percent of the daily value of folic acid, or eat a serving of breakfast cereal every day that has been enriched with 100 percent of the daily value of folic acid. <sup>11</sup>

The 2010 Texas PRAMS survey asked women the following questions about multivitamin use: "During the month before you got pregnant with your new baby, how many times a week did you take a multivitamin or a prenatal vitamin?" The response options are, "I didn't take a multivitamin or a prenatal vitamin at all;" "1 to 3 times a week;" "4 to 6 times a week;" or "Every day of the week."

Overall, approximately 41 percent of women reported that they took a multivitamin or prenatal vitamin at least one to three times a week (Table 5). Women of White and Other race/ethnicity had the highest rates of multivitamin or prenatal vitamin use, at 50.8 percent and 51.3 percent, respectively. Black women (37.1 percent) and Hispanic women (34.8 percent) had the lowest rates of multivitamin/prenatal vitamin use. There was a general increase in use with increasing age. Only 26.4 percent of women in the prime childbearing ages of 20 to 24 reported using multivitamins/prenatal vitamins. The following groups of women had significantly higher rates of multivitamin/prenatal vitamin use: those with annual household incomes greater than or equal to \$50,000 per year; more than a high school education; who were married; and not on Medicaid. Women who were border residents (35 percent) were significantly less likely than non-border residents (42.4 percent) to report multivitamin/prenatal vitamin use.

Women were also asked if they had ever heard or read that taking the vitamin folic acid can help prevent some birth defects. Overall, 75 percent of women reported knowledge of the benefits of folic acid (Table 6). Approximately 76 percent of Hispanic women reported knowledge; however, as mentioned above, they had the lowest rate of multivitamin/prenatal vitamin use, at 34.8 percent. Of note, Hispanic women have the highest rates of babies born with neural tube defects. There was a general increase in knowledge with increasing age, from approximately 57

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<sup>&</sup>lt;sup>9</sup> March of Dimes. Vitamins and minerals during pregnancy. Accessed on February 15, 2012, at http://www.marchofdimes.com/pregnancy/nutrition\_vitamins.html

<sup>&</sup>lt;sup>10</sup> National Institutes of Health. MedlinePlus Health Topics: Folic Acid. Accessed on February 15, 2012, at http://www.nlm.nih.gov/medlineplus/folicacid.html

<sup>&</sup>lt;sup>11</sup> Centers for Disease Control and Prevention. Facts about Folic Acid. Accessed on February 15, 2012, at http://www.cdc.gov/ncbddd/folicacid/about.html.

<sup>&</sup>lt;sup>12</sup> Morb Mortal Wkly Rep. 2009 Jan 30; 58(3):61.

percent in the youngest age group, to 90 percent among women aged 35 and older. There was also an increase in folic acid knowledge with increasing income and education. Women who were married and not on Medicaid also reported significantly higher rates of folic acid knowledge. Although border residents (81.6 percent) were significantly more likely than non-border residents (73.8 percent) to report knowledge of folic acid benefits, as noted above, they were significantly less likely to report multivitamin/prenatal vitamin use.

Table 5. Characteristics of Women Reporting Multivitamin or Prenatal Vitamin Use During the Month Before Pregnancy, Texas PRAMS 2010

Characteristics	Prevalence	Standard	95% Co	nfidence	Respondents	Estimated
	(%)	Error		rval	(N=1763)	Population
	(,,,		Lower	Upper	(= : = : = : )	Affected
MATERNAL						
Overall	41.4	1.5	38.5	44.3	1,755	156,554
Race/Ethnicity*						
White	50.8	2.5	45.8	55.8	500	66,000
Black	37.1	2.5	32.2	41.9	388	15,689
Hispanic	34.8	2.3	30.2	39.3	776	64,585
Other	51.3	6.1	39.3	63.3	90	10,223
Age (years)*						
<u>≤</u> 17	34.1	6.8	20.8	47.4	85	5,935
18-19	21.5	4.1	13.4	29.6	147	6,545
20-24	26.4	2.8	20.9	31.8	426	23,297
25-34	47.5	2.2	43.3	51.8	843	90,157
<u>≥</u> 35	58.8	4.1	50.8	66.8	254	30,620
<b>Annual Household Income*</b>						
<\$15K	26.5	2.2	22.2	30.9	676	35,425
<u>&gt;</u> \$15K to <\$25K	38.3	4.0	30.5	46.1	264	22,753
$\geq$ \$25K to <\$50K	38.1	3.9	30.5	45.7	267	22,555
≥\$50 <b>K</b>	63.8	2.8	58.4	69.3	427	65,163
Education (years)*						
<12	30.5	2.9	24.9	36.2	437	28,045
12	29.3	2.7	23.9	34.6	473	30,804
>12	53.9	2.1	49.7	58.2	844	97,365
Marital Status*						
Married	51.6	2.0	47.7	55.5	965	112,994
Unmarried	27.4	2.1	23.2	31.5	790	43,560
Medicaid Recipient <sup>a</sup> *						
No	55.6	2.3	51.1	60.1	714	90,995
Yes	30.5	1.9	26.7	34.3	1,018	63,908
Border Resident <sup>†</sup>					,	,
No	42.4	1.7	39.2	45.7	1,308	138,668
Yes	35.0	2.9	29.2	40.7	447	17,885
INFANT			, ·-			.,
Birth Weight						
Low (<2500 g)	41.2	2.5	36.3	46.2	389	11,732
Normal ( <u>&gt;</u> 2500g)	41.4	1.6	38.3	44.6	1,366	144,821
Gestational Age		1.0	20.2		1,500	1.1,021
<37 Weeks (preterm)	45.0	3.7	37.7	52.2	355	18,387
≥37 Weeks	41.0	1.6	37.8	44.2	1,400	138,166

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Prevalence:** Estimated percent of Texas women with the specified indicator.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Table 6. Characteristics of Women Reporting Knowledge of Folic Acid Benefit, Texas PRAMS 2010

Characteristics	Prevalence	Standard		nfidence rval	Respondents	Estimated Population
	(%)	Error	Lower	Upper		Affected
MATERNAL						
Overall	74.9	1.3	72.2	77.5	1,753	282,406
Race/Ethnicity*						
White	76.4	2.2	72.1	80.7	500	99,252
Black	65.1	2.5	60.3	69.9	385	27,373
Hispanic	75.8	2.1	71.6	80.0	778	140,484
Other	76.7	5.2	66.5	87.0	89	15,240
Age (years)*						
<u>≤</u> 17	56.6	7.2	42.5	70.8	85	9,860
	54.4	5.3	43.9	64.9	147	16,590
20-24	60.9	3.2	54.7	67.1	427	53,821
25-34	82.1	1.7	78.9	85.4	839	154,733
≥35	90.2	2.2	85.9	94.4	255	47,404
Annual Household Income*						
<\$15K	63.4	2.5	58.5	68.3	679	84,460
≥\$15K to <\$25K	73.3	3.5	66.5	80.2	265	43,609
	79.3	3.3	72.9	85.8	268	47,392
≥\$50 <b>K</b>	87.4	1.8	83.8	91.0	427	89,253
Education (years)*						
<12	66.1	3.0	60.1	72.0	438	60,756
12	70.2	2.7	64.8	75.6	473	73,527
>12	82.0	1.6	78.8	85.2	841	147,783
Marital Status*						
Married	81.0	1.6	77.9	84.1	966	177,721
Unmarried	66.3	2.3	61.9	70.7	787	104,685
Medicaid Recipient <sup>a</sup> *						
No	84.0	1.7	80.7	87.3	716	137,661
Yes	68.0	1.9	64.1	71.8	1,021	142,529
Border Resident <sup>†</sup>						
No	73.8	1.5	70.9	76.7	1,303	240,437
Yes	81.6	2.7	76.3	87.0	450	41,970
INFANT						
Birth Weight						
Low (<2500 g)	72.3	2.3	67.7	76.9	388	20,550
Normal ( <u>&gt;</u> 2500g)	75.1	1.4	72.3	77.9	1,365	261,856
Gestational Age						
<37 Weeks (preterm)	77.5	2.9	71.8	83.3	354	31,654
>37 Weeks	74.5	1.5	71.7	77.4	1,399	250,752

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

#### **TOBACCO USE**

The harmful effects of smoking have been extensively studied and are well-established. Aside from the harmful effects on women's general health, smoking before pregnancy is associated with difficulties and delays in conception. Smoking during pregnancy puts babies at higher risk of premature birth, low birth weight, and sudden infant death syndrome (SIDS). Exposure to secondhand smoke has been shown to cause premature death and disease in children and adults who do not smoke. 13

Texas PRAMS asked mothers about their smoking status before, during, and after pregnancy. Overall, 18.6 percent of women reported smoking during the three months before pregnancy (Table 7), 7.0 percent reported smoking during the third trimester (Table 8) and 11.6 percent reported smoking during the postpartum period (Table 9). For all three time periods, White women and Black women had the highest rates of smoking. The decrease from reported smoking prior to pregnancy to the postpartum period was most notable among Hispanic women who had a 50 percent decrease. Among the different age groups, women aged 18-24 had the highest rates of smoking during all three time periods. Women with the highest annual household income (>=\$50,000 per year) had lower reported rates of smoking before, during, and after pregnancy. Unmarried women and Medicaid recipients had significantly higher rates of smoking during all three time periods. When compared to women living in non-border counties, women residing in border counties had lower rates of smoking during all three time periods.

Women were also asked the following question about smoking in the home, "Which of the following statements best describes the rules about smoking *inside* your home *now*?" The response options were: "No one is allowed to smoke anywhere inside my home;" "Smoking is allowed in some rooms or at some times" or "Smoking is permitted anywhere inside my home." Overall, only 6.7 percent of women responded that smoking is allowed inside their home (either in some rooms or at some times, or anywhere inside the home) (Table 10). Black women (12.9) percent) were more likely than White women (8.1 percent), women of Other race/ethnicity (5.2 percent), and Hispanic women (4.5 percent) to report that smoking is allowed inside their home. Rates generally decreased with increasing age and income. Rates were significantly lower among women with some college; who were married and those who did not have their delivery paid by Medicaid.

<sup>&</sup>lt;sup>13</sup> Centers for Disease Control and Prevention. Tobacco Use and Pregnancy. Accessed on February 15, 2012 at http://www.cdc.gov/reproductivehealth/tobaccousepregnancy/index.htm.

Table 7. Characteristics of Women Reporting Cigarette Smoking Three Months Before Pregnancy, Texas PRAMS 2010

Characteristics	Prevalence	Standard	95% Confidence Interval		Respondents	Estimated Population
	(%)	Error	Lower	Upper		Affected
MATERNAL				•		
Overall	18.6	1.1	16.4	20.9	1,744	70,031
Race/Ethnicity*						
White	30.2	2.4	25.6	34.9	497	39,062
Black	19.8	2.0	15.8	23.9	384	8,326
Hispanic	10.9	1.5	8.0	13.9	774	20,218
Other	12.0	4.2	3.8	20.2	88	2,367
Age (years)*						
<u>≤</u> 17	10.0	4.2	1.8	18.3	85	1,746
18-19	30.1	5.0	20.3	39.8	147	9,068
20-24	27.4	2.8	21.9	32.8	423	23,950
25-34	15.6	1.6	12.5	18.6	836	29,303
<u>&gt;</u> 35	11.4	2.4	6.6	16.1	253	5,964
<b>Annual Household Income*</b>						
<\$15K	22.0	2.1	18.0	26.1	678	29,295
≥\$15K to <\$25K	23.5	3.3	17.0	30.0	261	13,914
≥\$25K to <\$50K	18.8	2.9	13.1	24.5	267	11,163
≥\$50K	11.2	1.8	7.8	14.7	427	11,482
Education (years)*						
<12	17.4	2.2	13.0	21.8	438	15,940
12	26.2	2.6	21.1	31.3	469	27,364
>12	14.9	1.5	11.9	17.9	836	26,726
Marital Status*						
Married	13.8	1.3	11.2	16.4	963	30,236
Unmarried	25.4	2.0	21.4	29.3	781	39,795
Medicaid Recipient <sup>a</sup> *						
No	11.8	1.4	9.0	14.6	715	19,291
Yes	24.0	1.7	20.7	27.4	1,016	50,260
Border Resident <sup>†</sup>						
No	19.6	1.3	17.1	22.1	1,296	63,681
Yes	12.5	2.1	8.5	16.5	448	6,349
INFANT						
Birth Weight*						
Low (<2500 g)	25.6	2.2	21.2	30.0	383	7,169
Normal (≥2500g)	18.1	1.2	15.7	20.5	1,361	62,862
Gestational Age						
<37 Weeks (preterm)	19.2	2.6	14.1	24.3	348	7,743
≥37 Weeks	18.6	1.3	16.1	21.0	1,396	62,288

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Table 8. Characteristics of Women Reporting Cigarette Smoking During the Third Trimester, Texas PRAMS 2010

Characteristics	Prevalence	Standard	95% Confidence Interval		Respondents	Estimated Population
	(%)	Error	Lower	Upper	(N=1763)	Affected
MATERNAL						
Overall	7.0	0.7	5.5	8.4	1,749	26,265
Race/Ethnicity*						
White	13.8	1.8	10.3	17.2	499	17,843
Black	6.6	1.3	4.1	9.1	385	2,780
Hispanic	2.6	0.7	1.1	4.0	775	4,713
Other	4.4	2.9	0.0	10.0	89	872
Age (years)*						
≤17	0.4	0.4	0.0	1.3	85	78
	9.1	3.3	2.6	15.6	147	2,748
20-24	12.0	1.9	8.1	15.8	424	10,480
25-34	6.2	1.0	4.2	8.2	838	11,731
≥35	2.3	0.8	0.7	3.9	255	1,228
Annual Household Income*						
<\$15K	10.0	1.5	7.1	12.9	679	13,363
≥\$15K to <\$25K	9.5	2.3	5.0	13.9	264	5,622
_ ≥\$25K to <\$50K	5.4	1.6	2.2	8.6	268	3,220
_ ≥\$50K	2.7	0.9	1.0	4.4	427	2,768
Education (years)*						
<12	8.4	1.6	5.2	11.6	438	7,656
12	10.1	1.7	6.6	13.5	469	10,480
>12	4.5	0.9	2.8	6.2	841	8,130
Marital Status*						
Married	4.9	0.8	3.3	6.5	966	10,731
Unmarried	9.9	1.4	7.2	12.6	783	15,535
Medicaid Recipient <sup>a</sup> *						
No	3.1	0.7	1.7	4.5	716	5,097
Yes	9.9	1.2	7.6	12.2	1,020	20,689
Border Resident						
No	7.4	0.8	5.8	9.0	1,301	24,063
Yes	4.3	1.5	1.3	7.4	448	2,202
INFANT						
Birth Weight*						
Low (<2500 g)	12.1	1.6	8.9	15.3	385	3,398
Normal (≥2500g)	6.6	0.8	5.0	8.1	1,364	22,868
Gestational Age*						
<37 Weeks (preterm)	6.0	1.1	3.8	8.1	351	2,418
≥37 Weeks	7.1	0.8	5.5	8.7	1,398	23,847

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

Table 9. Characteristics of Women Reporting Postpartum Cigarette Smoking, Texas PRAMS 2010

Characteristics	Prevalence	Standard Error		onfidence erval	Respondents	Estimated Population Affected
	(%)	EITOI	Lower	Upper	(N=1763)	
MATERNAL						
Overall	11.6	0.9	9.8	13.4	1,748	43,662
Race/Ethnicity*						
White	19.3	2.0	15.3	23.2	499	25,004
Black	16.6	1.9	12.8	20.3	385	6,977
Hispanic	5.5	1.1	3.4	7.6	774	10,113
Other	7.6	3.2	1.2	14.0	89	1,511
Age (years)*						
<u>≤</u> 17	3.2	2.8	0.0	8.6	85	565
18-19	17.8	4.0	9.9	25.7	146	5,356
20-24	18.5	2.3	13.9	23.0	424	16,266
25-34	9.9	1.2	7.5	12.3	839	18,666
<u>≥</u> 35	5.4	1.6	2.3	8.4	254	2,810
<b>Annual Household Income*</b>						
<\$15K	15.1	1.7	11.7	18.5	678	20,115
$\geq$ \$15K to <\$25K	13.3	2.5	8.4	18.2	264	7,901
$\geq$ \$25K to $<$ \$50K	11.0	2.3	6.5	15.6	268	6,597
≥\$50K	6.2	1.3	3.7	8.7	427	6,312
Education (years)*						
<12	11.4	1.8	7.9	14.9	436	10,428
12	18.2	2.3	13.7	22.6	470	19,047
>12	7.9	1.1	5.8	10.0	841	14,187
Marital Status*						
Married	8.3	1.0	6.3	10.3	965	18,253
Unmarried	16.1	1.7	12.9	19.4	783	25,409
Medicaid Recipient <sup>a</sup> *						
No	6.9	1.1	4.8	9.0	715	11,326
Yes	15.2	1.4	12.4	17.9	1,020	31,856
Border Resident <sup>†</sup>						
No	12.3	1.0	10.3	14.3	1,301	39,973
Yes	7.2	1.7	4.0	10.5	447	3,689
INFANT						
Birth Weight*						
Low (<2500 g)	18.2	2.0	14.4	22.1	385	5,131
Normal ( <u>&gt;</u> 2500g)	11.1	1.0	9.1	13.0	1,363	38,531
<b>Gestational Age</b>						
<37 Weeks (preterm)	13.5	2.1	9.3	17.7	351	5,478
≥37 Weeks	11.4	1.0	9.4	13.3	1,397	38,184

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Table 10. Characteristics of Women Reporting that Smoking is Allowed Inside Their Home, Texas PRAMS 2010

Characteristics	Prevalence (%)	Standard Error		nfidence rval	Respondents (N=1763)	Estimated Population	
	(70)	EIIOI	Lower	Upper	(N=1703)	Affected	
MATERNAL							
Overall	6.7	0.8	5.2	8.2	1,739	25,106	
Race/Ethnicity*							
White	8.1	1.5	5.2	11.0	496	10,431	
Black	12.9	1.7	9.5	16.3	381	5,381	
Hispanic	4.5	1.0	2.5	6.5	773	8,274	
Other	5.2	2.9	0.0	11.0	773	1021	
Age (years)*							
<u>≤</u> 17	16.9	5.3	6.6	27.3	85	2,950	
18-19	11.5	3.2	5.1	17.8	147	3,457	
20-24	10.9	2.0	6.9	14.9	423	9,575	
25-34	3.7	0.8	2.3	5.2	832	7,018	
≥35	4.1	1.6	0.9	7.3	252	2,106	
Annual Household Income*							
<\$15K	11.1	1.6	8.0	14.2	674	14,685	
≥\$15K to <\$25K	6.1	1.8	2.7	9.6	263	3,645	
≥\$25K to <\$50K	6.7	2.1	2.6	10.8	268	4,026	
≥\$50K	2.0	0.8	0.5	3.5	423	2,008	
Education (years) <sup>†</sup>							
<12	9.4	1.8	5.9	12.9	434	8,522	
12	8.0	1.5	5.1	10.8	468	8,340	
>12	4.6	1.0	2.7	6.5	836	8,244	
Marital Status*							
Married	3.6	0.7	2.1	5.0	960	7,780	
Unmarried	11.1	1.5	8.2	13.9	779	17,327	
Medicaid Recipient <sup>a</sup> *							
No	3.1	0.8	1.5	4.6	710	5,018	
Yes	9.6	1.2	7.2	11.9	1,016	20,005	
<b>Border Resident</b>							
No	6.9	0.8	5.2	8.5	1,291	22,178	
Yes	5.7	1.8	2.1	9.3	448	2,929	
INFANT							
Birth Weight							
Low (<2500 g)	4.3	1.1	2.2	6.4	383	1,211	
Normal (≥2500g)	6.9	0.8	5.3	8.5	1,356	23,896	
Gestational Age							
<37 Weeks (preterm)	5.9	2.0	1.9	9.9	349	2,360	
>37 Weeks	6.8	0.8	5.2	8.4	1,390	22,746	

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

#### ALCOHOL USE

Alcohol use during pregnancy has been associated with health problems that affect both the mother and baby, including Fetal Alcohol Syndrome (FAS) and other Fetal Alcohol Spectrum Disorders (FASD), birth defects, and low birth weight. The Office of the Surgeon General, the American Academy of Pediatrics (AAP), and the American Congress of Obstetricians and Gynecologists (ACOG) all maintain that there is no safe amount of alcohol consumption during pregnancy. 15,16

Overall, 46.1 percent of women reported drinking alcohol in any amount during the three months before pregnancy (Table 11), and 6.1 percent of women reported drinking any amount of alcohol during the third trimester (Table 12). For both time periods, White women had the highest rates of alcohol consumption, at 66.1 percent before pregnancy (which was significantly higher than all the other race/ethnicity groups) and 8.8 percent during the third trimester. During both time periods, women with the highest annual household income level (>= \$50,000 per year) and at least some college had the highest rates of binge drinking. Married women and women who did not have their delivery paid by Medicaid also had higher rates of alcohol consumption. Women who were border residents had lower rates of alcohol use than non-border residents during both time periods.

Binge drinking was defined as having four or more alcoholic drinks in one sitting. Overall, 23.7 percent of women reported binge drinking in the three months before pregnancy (Table 13). White women were significantly more likely than all other race/ethnicity groups to report binge drinking during the three months before pregnancy, at 34.1 percent. Among the different age groups, the lowest rates of binge drinking before pregnancy were seen among women aged 17 and younger (9.1 percent) and women aged 35 and older (14 percent), and the highest rate of binge drinking was reported among women aged 18-19 (34.1 percent). Overall, only one percent of women reported binge drinking during the third trimester (Table 14).

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<sup>&</sup>lt;sup>14</sup> Centers for Disease Control and Prevention. Alcohol consumption among women who are pregnant or who might become pregnant --- United States, 2002. *Morb Mortal Wkly Rep.* 2004: 53(50);1178-1181.

<sup>&</sup>lt;sup>15</sup> Office of the Surgeon General. 2005 Press Release – Advisory on Alcohol Use during Pregnancy. Accessed February 15, 2012 at http://www.surgeongeneral.gov/pressreleases/sg02222005.html.

<sup>&</sup>lt;sup>16</sup> Cheng D, Kettinger L, et al. Alcohol Consumption During Pregnancy. *Obstet Gynecol*. 2011:117(2);212-217.

Table 11. Characteristics of Women Reporting Alcohol Use Three Months Before Conception, Texas PRAMS 2010

Characteristics	Prevalence	Standard		nfidence rval	Respondents	Estimated Population
	(%)	Error	Lower	Upper	(N=1763)	Affected
MATERNAL						
Overall	46.1	1.5	43.2	49.0	1,746	173,336
Race/Ethnicity*						
White	66.1	2.4	61.4	70.8	499	85,645
Black	45.1	2.6	40.1	50.2	384	18,947
Hispanic	33.8	2.3	29.2	38.3	773	62,317
Other	32.1	5.7	20.9	43.3	89	6,369
Age (years)*						
<u>≤</u> 17	17.2	5.6	6.1	28.2	85	2,988
18-19	44.2	5.3	33.8	54.5	147	13,320
20-24	46.8	3.2	40.5	53.0	424	41,209
25-34	50.3	2.1	46.1	54.5	836	94,478
<u>≥</u> 35	40.7	4.0	32.9	48.5	254	21,341
<b>Annual Household Income*</b>						
<\$15K	34.5	2.4	29.8	39.2	679	46,075
≥\$15K to <\$25K	50.5	4.0	42.6	58.4	263	29,675
≥\$25K to <\$50K	45.3	3.9	37.6	53.0	267	27,044
≥\$50K	63.7	2.7	58.3	69.0	427	64,986
Education (years)*						
<12	24.1	2.6	19.0	29.2	437	22,042
12	45.7	3.0	39.8	51.6	469	47,604
>12	57.6	2.1	53.4	61.8	839	103,690
<b>Marital Status</b>						
Married	48.5	2.0	44.6	52.4	965	106,397
Unmarried	42.7	2.3	38.2	47.3	781	66,939
Medicaid Recipient <sup>a</sup> *						
No	55.0	2.3	50.5	59.4	714	89,686
Yes	39.2	2.0	35.3	43.1	1,019	82,286
<b>Border Resident*</b>						
No	47.7	1.6	44.5	51.0	1,299	155,054
Yes	35.7	3.0	29.8	41.6	447	18,282
INFANT						
Birth Weight						
Low (<2500 g)	42.0	2.5	37.0	47.0	385	11,834
Normal (≥2500g)	46.4	1.6	43.3	49.5	1,361	161,502
Gestational Age						
<37 Weeks (preterm)	43.4	3.7	36.2	50.7	350	17,600
≥37 Weeks	46.4	1.6	43.3	49.6	1,396	155,736

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

Table 12. Characteristics of Women Reporting Any Alcohol Use During the Third Trimester, Texas PRAMS 2010

Characteristics	Prevalence	Standard		nfidence rval	Respondents	Estimated Population
	(%)	Error	Lower	Upper	(N=1763)	Affected
MATERNAL						
Overall	6.1	0.7	4.7	7.6	1,744	23,091
Race/Ethnicity*						
White	8.8	1.4	6.0	11.7	500	11,490
Black	3.1	0.9	1.4	4.9	383	1,312
Hispanic	5.2	1.1	3.1	7.3	772	9,609
Other	3.4	2.4	0.0	8.1	88	680
Age (years)*						
<u>≤</u> 17	0.5	0.5	0.0	1.5	85	88
18-19	0.3	0.3	0.0	0.9	147	88
20-24	4.1	1.2	1.7	6.4	424	3,567
25-34	8.4	1.2	6.0	10.8	834	15,789
<u>≥</u> 35	6.8	2.0	2.8	10.8	254	3,559
Annual Household Income*						
<\$15K	4.0	1.0	2.0	6.0	678	5,359
≥\$15K to <\$25K	6.8	2.2	2.6	11.0	262	3,981
	3.8	1.5	0.9	6.6	268	2,252
_ ≥\$50K	10.5	1.8	7.1	13.9	426	10,699
Education (years)						
<12	3.1	1.1	1.0	5.3	437	2,879
12	6.0	1.5	3.1	8.9	469	6,256
>12	7.8	1.2	5.5	10.0	837	13,956
Marital Status <sup>†</sup>						
Married	7.7	1.1	5.6	9.8	961	16,892
Unmarried	3.9	0.9	2.1	5.8	783	6,199
Medicaid Recipient <sup>a†</sup>						
No	8.0	1.2	5.5	10.4	713	13,034
Yes	4.8	0.9	3.0	6.6	1,018	10,057
<b>Border Resident</b>						
No	6.4	0.8	4.7	8.1	1,298	20,787
Yes	4.5	0.9	2.8	6.2	446	2,304
INFANT						
Birth Weight						
Low (<2500 g)	4.0	1.0	2.1	5.9	385	1,124
Normal ( <u>&gt;</u> 2500g)	6.3	0.8	4.7	7.9	1,359	21,967
Gestational Age <sup>†</sup>						
<37 Weeks (preterm)	3.0	1.0	1.0	5.1	350	1,228
>37 Weeks	6.5	0.8	4.9	8.1	1,394	21,864

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Table 13. Characteristics of Women Reporting Binge Drinking Three Months Before Pregnancy, Texas PRAMS 2010

Characteristics	Prevalence	Standard		nfidence rval	Respondents	Estimated Population
	(%)	Error	Lower	Upper	(N=1763)	Affected
MATERNAL				•		
Overall	23.7	1.4	21.0	26.5	1,522	77,755
Race/Ethnicity*						
White	34.1	2.6	29.0	39.2	429	38,756
Black	18.4	2.2	14.2	22.6	329	6,611
Hispanic	19.1	2.0	15.1	23.1	684	30,615
Other	9.8	3.5	3.0	16.5	79	1,717
Age (years)*						
<u>≤</u> 17	9.1	4.3	0.7	17.5	77	1,411
	34.1	5.4	23.6	44.7	130	9,230
20-24	27.0	3.1	20.9	33.1	367	20,199
25-34	24.6	2.0	20.7	28.4	736	40,730
≥35	14.0	3.0	8.0	20.0	212	6,186
Annual Household Income*						
<\$15K	19.5	2.1	15.4	23.7	605	22,903
≥\$15K to <\$25K	31.9	4.0	24.0	39.8	233	16,974
	24.9	3.6	17.7	32.0	231	12,499
_ ≥\$50K	25.2	2.7	19.9	30.4	361	22,203
Education (years)*						
<12	14.7	2.3	10.2	19.1	396	12,066
12	29.3	3.0	23.4	35.3	404	26,220
>12	25.3	2.0	21.4	29.2	722	39,469
Marital Status						
Married	21.5	1.8	18.0	24.9	827	40,241
Unmarried	26.8	2.2	22.4	31.2	695	37,515
Medicaid Recipient <sup>a</sup>						
No	24.6	2.1	20.4	28.8	622	35,201
Yes	23.1	1.9	19.4	26.7	889	41,992
<b>Border Resident</b>						
No	23.9	1.5	20.8	26.9	1,126	67,870
Yes	22.9	2.9	17.3	28.5	396	9,885
INFANT						
Birth Weight						
Low (<2500 g)	22.8	2.2	18.5	27.2	319	5,310
Normal ( <u>&gt;</u> 2500g)	23.8	1.5	20.9	26.7	1,203	72,446
Gestational Age						
<37 Weeks (preterm)	20.4	3.3	13.8	26.9	293	6,964
>37 Weeks	24.1	1.5	21.2	27.1	1,229	70,791

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

Table 14. Characteristics of Women Reporting Binge Drinking During the Third Trimester, Texas PRAMS 2010

Characteristics	Prevalence	Standard		nfidence	Respondents	Estimated Population
	(%)	Error	Lower	rval Upper	(N=1763)	Affected
MATERNAL						
Overall	1.0	0.3	0.4	1.7	1,743	3,869
Race/Ethnicity						
White	0.4	0.3	0.0	0.9	498	538
Black	0.5	0.4	0.0	1.2	385	219
Hispanic	1.7	0.6	0.5	2.9	771	3112
Other					88	
Age (years)						
<u>≤</u> 17					85	
18-19	0.3	0.3	0.0	0.9	147	88
20-24	1.8	0.9	0.0	3.7	425	1,611
25-34	1.1	0.5	0.2	2.1	832	2,106
<u>≥</u> 35	0.1	0.1	0.0	0.4	254	64
<b>Annual Household Income</b>						
<\$15K	1.3	0.6	0.2	2.5	678	1,757
$\geq$ \$15K to <\$25K	1.6	1.1	0.0	3.6	263	925
$\geq$ \$25K to <\$50K	0.8	0.6	0.0	2.0	268	496
≥\$50K					424	
Education (years) <sup>†</sup>						
<12	0.4	0.2	0.0	0.8	437	353
12	2.5	1.1	0.4	4.6	469	2,640
>12	0.5	0.2	0.1	0.9	836	875
Marital Status						
Married	0.9	0.4	0.1	1.7	960	1,982
Unmarried	1.2	0.5	0.2	2.2	783	1,887
Medicaid Recipient <sup>a†</sup>						
No	0.2	0.2	0.0	0.6	711	392
Yes	1.7	0.6	0.6	2.7	1,019	3,476
Border Resident						
No	0.9	0.4	0.2	1.7	1,298	3,075
Yes	1.6	0.5	0.5	2.6	445	794
INFANT						
Birth Weight						
Low (<2500 g)	1.0	0.5	0.0	2.0	385	282
Normal ( <u>&gt;</u> 2500g)	1.0	0.3	0.4	1.7	1,358	3,587
Gestational Age						
<37 Weeks (preterm)	0.5	0.3	0.0	1.1	350	218
≥37 Weeks	1.1	0.4	0.4	1.8	1,393	3,650

*Note.* -- No respondents reported binge drinking during the third trimester; therefore no estimates are presented.

Prevalence: Estimated percent of Texas women with the specified indicator.

**Respondents:** Total number of mothers who responded to this question.

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

#### INTIMATE PARTNER VIOLENCE

The CDC defines intimate partner violence (IPV) as abuse that occurs between two people in a close relationship. An intimate partner can include a current or former spouse or dating partner. IPV includes four types of behavior: physical abuse, sexual abuse, threats of physical or sexual abuse, and emotional abuse. According to findings from the National Violence Against Women Survey, almost 25 percent of U.S. women reported that they were raped and/or physically assaulted by a current or former spouse/partner/date at some point in their life. <sup>17</sup>

National estimates of violence during pregnancy range from four to eight percent. Physical violence has been associated with numerous adverse health behaviors and outcomes, including substance abuse, depression, unintended pregnancy, late entry into prenatal care, preterm delivery, low birth weight, and gynecological problems such as urinary tract infections. In 2010, Texas PRAMS data showed that overall, five percent of women reported being abused by a husband/partner during the 12 months before pregnancy and/or during pregnancy (Table 15). Black women reported the highest rates of abuse, at 10 percent. In general, as age and income level increased, reported abuse decreased. Women who were unmarried and those who had their delivery paid by Medicaid were significantly more likely to report physical abuse during the 12 months before and/or during pregnancy.

ACOG, the American Medical Association (AMA), the American Academy of Family Physicians (AAFP), and the Institute of Medicine (IOM) recommend that physicians screen all women for IPV. ACOG recommends screening at routine obstetrics and gynecology visits, family planning visits, and preconception visits. Women sometimes will not report abuse the first time they are asked, and abuse may begin later in pregnancy; therefore, women who are pregnant should be screened for IPV at the first prenatal care visit, at least once per trimester, and at the postpartum checkup.

The PRAMS survey asked, "During any of your prenatal care visits, did a doctor, nurse, or other health care worker talk with you about physical abuse to women by their husbands or partners?" Overall, 51 percent of women reported that they had this discussion (Table 16). The women with the highest rates of reported abuse (women who were Black or Hispanic, younger, with lower annual household incomes, less education, who were unmarried, and who had their delivery paid by Medicaid) were significantly more likely to report having had this discussion.

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<sup>&</sup>lt;sup>17</sup> National Institute of Justice – Findings from the National Violence Against Women Survey. Accessed on February 15, 2012 at http://www.ncjrs.gov/pdffiles1/nij/181867.pdf

<sup>&</sup>lt;sup>18</sup> Centers for Disease Control and Prevention. PRAMS and Physical Violence and Reproductive Health. Accessed on February 15, 2012 at http://www.cdc.gov/reproductivehealth/ProductsPubs/PDFs/Physical%20Violence.pdf <sup>19</sup> Campbell JC. Health consequences of intimate partner violence. *The Lancet*. 2002;359;1331-1336.

<sup>&</sup>lt;sup>20</sup> American Congress of Obstetricians and Gynecologists. Screening Tools—Domestic Violence. Accessed on February 15, 2012 at http://www.acog.org/About\_ACOG/ACOG\_Departments/Violence\_Against\_Women.

Table 15. Characteristics of Women Reporting Physical Abuse by a Husband/Partner in the 12 Months Before Pregnancy or During Pregnancy, Texas PRAMS 2010

Characteristics	Prevalence	Standard		nfidence erval	Respondents	Estimated Population
	(%)	Error	Lower	Upper	(N=1763)	Affected
MATERNAL				- * *		
Overall	5.0	0.6	3.8	6.3	1,656	17,960
Race/Ethnicity*						
White	2.9	0.9	1.2	4.6	489	3,637
Black	10.0	1.6	6.9	13.2	360	3,969
Hispanic	5.6	1.1	3.4	7.8	718	9,569
Other	3.7	2.5	0.0	8.5	88	729
Age (years)*						
≤17	NA	NA	NA	NA	NA	NA
	11.5	3.4	4.8	18.2	147	3477.0
20-24	8.0	1.6	4.8	11.2	423	7,004
25-34	3.1	0.7	1.8	4.5	833	5,853
≥35	3.1	1.4	0.3	5.9	253	1,626
Annual Household Income*						
<\$15K	8.5	1.4	5.7	11.3	629	10,566
≥\$15K to <\$25K	7.5	2.1	3.3	11.7	252	4,148
>\$25K to <\$50K	2.6	1.0	0.5	4.6	262	1,492
	0.6	0.2	0.1	1.1	425	598
Education (years)						
<12	6.7	1.7	3.4	10.0	361	5,140
12	6.4	1.5	3.6	9.3	458	6,559
>12	3.5	0.7	2.2	4.8	836	6,262
Marital Status*						
Married	2.6	0.6	1.4	3.8	955	5,561
Unmarried	8.8	1.3	6.2	11.4	701	12,400
Medicaid Recipient <sup>a</sup> *						
No	1.6	0.4	0.8	2.5	703	2,592
Yes	7.9	1.1	5.7	10.1	945	15,369
<b>Border Resident</b>						
No	4.6	0.7	3.2	5.9	1,233	14,091
Yes	8.1	2.0	4.1	12.1	423	3,870
INFANT						
Birth Weight						
Low (<2500 g)	7.5	1.4	4.7	10.3	364	1,980
Normal (≥2500g)	4.8	0.7	3.5	6.2	1,292	15,981
Gestational Age						
<37 Weeks (preterm)	6.7	1.8	3.1	10.3	335	2,534
>37 Weeks	4.8	0.7	3.5	6.2	1,321	15,426

Note. NA, not applicable (women under the age of 18 are not asked about physical abuse).

**Prevalence:** Estimated percent of Texas women with the specified indicator.

**Respondents:** Total number of mothers who responded to this question.

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

<sup>\*</sup>Denotes a significant difference within the subgroup.

Table 16. Characteristics of Women Reporting Discussion of Physical Abuse with Provider During Prenatal Care Visit, Texas PRAMS 2010

Characteristics	Prevalence	Standard		nfidence rval	Respondents	Estimated Population
	(%)	Error	Lower	Upper	(N=1763)	Affected
MATERNAL						
Overall	51.0	1.5	48.0	54.0	1,721	189,521
Race/Ethnicity*						
White	40.2	2.5	35.2	45.1	495	51,598
Black	59.0	2.6	54.0	64.0	378	24,427
Hispanic	58.6	2.4	53.8	63.4	761	106,837
Other	34.5	6.0	22.7	46.2	86	6,602
Age (years)*						
<u>≤</u> 17	60.5	7.2	46.4	74.6	82	10,374
18-19	50.2	5.4	39.7	60.8	145	15,264
20-24	61.3	3.2	55.1	67.6	417	52,992
25-34	47.3	2.2	43.1	51.6	826	87,911
≥35	44.4	4.1	36.4	52.4	251	22,981
Annual Household Income*						
<\$15K	64.1	2.5	59.2	68.9	661	83,220
≥\$15K to <\$25K	55.3	4.1	47.3	63.3	261	32,249
≥\$25K to <\$50K	47.6	4.0	39.7	55.5	263	28,120
≥\$50K	33.5	2.7	28.2	38.9	425	34,105
Education (years)*						
<12	64.2	3.1	58.2	70.2	422	57,127
12	62.3	3.0	56.5	68.1	467	64,536
>12	38.0	2.1	33.9	42.1	831	67,859
Marital Status*						
Married	43.8	2.0	39.9	47.7	952	94,806
Unmarried	61.1	2.3	56.5	65.7	769	94,715
Medicaid Recipient <sup>a</sup> *						
No	38.4	2.3	33.9	42.8	701	61,714
Yes	60.2	2.1	56.2	64.3	1,004	124,605
<b>Border Resident</b>						
No	50.7	1.7	47.3	54.0	1,280	162,504
Yes	53.4	3.3	46.9	59.8	441	27,017
INFANT						
Birth Weight <sup>†</sup>						
Low (<2500 g)	57.1	2.5	52.1	62.1	379	15,848
Normal ( <u>&gt;</u> 2500g)	50.5	1.6	47.3	53.8	1,342	173,673
Gestational Age						
<37 Weeks (preterm)	54.6	3.7	47.2	61.9	345	21,537
>37 Weeks	50.6	1.7	47.4	53.9	1,376	167,984

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

#### PRENATAL CARE

Early and adequate prenatal care is extremely important to the health of both the mother and baby. Babies of mothers who do not get prenatal care are three times more likely to have low birth weight and five times more likely to die than those born to mothers who do get prenatal care. <sup>21</sup> Health care providers can identify health problems early when they see mothers regularly. This allows early treatment, which can cure many problems and prevent others. Health care providers can also talk to pregnant women about things they can do to give their babies a healthy start to life.

The earlier that prenatal care begins the better. Texas PRAMS asks women how many weeks pregnant they were when they went for their first visit for prenatal care. Overall, 24.5 percent of women reported that they did *not* receive prenatal care during the first trimester (Table 17). Black and Hispanic women had significantly higher rates of late entry into prenatal care, at 31.3 percent and 29.9 percent, respectively, when compared to White women (16.1 percent) and women of Other race/ethnicity (15.4 percent). Women aged 24 years and younger had higher rates of late prenatal care than women aged 25 and older. Late entry into prenatal care increased as income and education decreased. Women with incomes of less than \$15,000 per year (37.8 percent) were eight times as likely as those with the highest incomes (4.9 percent) to enter prenatal care late. Women with a high school education or less, those who were unmarried, those who had their delivery paid by Medicaid, and border residents were also significantly more likely to enter prenatal care late.

PRAMS moms were asked the question, "Did you get prenatal care as early in your pregnancy as you wanted?" Overall, 21.3 percent reported that they did not receive prenatal care as early as they wanted (Table 18), which is near the percent reported for late entry into prenatal care (24.5 percent). Women were also given a list of barriers to obtaining prenatal care and then they were asked to specify whether or not they experienced any of these problems (Figure 2). The top five barriers reported were not having a Medicaid card (56.7 percent), not having enough money or insurance to pay for prenatal care visits (55.4 percent), not being able to get an appointment (40.7 percent), not knowing about the pregnancy (32.7 percent), and/or the doctor or health plan would not start care as early as the mother wanted (28.6 percent). The majority of the reported barriers to prenatal care could be eliminated through education and increasing access to services.

The 2010 Texas PRAMS survey also included a question about discussions women had with their health care providers during prenatal care visits. Women were given a list of topics and asked, for each topic, whether or not someone talked with them about it. These topics included, but are not limited to: tobacco, alcohol, and illegal drug use; breastfeeding; safe medications during pregnancy; and screening for birth defects. Over 80 percent of women reported having a discussion about safe medications, screening for birth defects, and breastfeeding (Figure 3). Around 70 percent reported having a discussion about how drinking and smoking could affect their baby, and 65.3 percent reported having a discussion about how illegal drug use could affect their baby.

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<sup>&</sup>lt;sup>21</sup> U.S. Department of Health and Human Services Office on Women's Health. Prenatal care fact sheet. Accessed on February 15, 2012 at http://www.womenshealth.gov/faq/prenatal-care.cfm

Table 17. Characteristics of Women who Entered Prenatal Care Late (After the First Trimester), Texas PRAMS 2010

Chanastanistia:	Prevalence	Standard		nfidence	Respondents	Estimated
Characteristics	(%)	Error	Inte Lower	rval Upper	(N=1763)	Population Affected
MATERNAL				- FF		
Overall	24.5	1.3	21.9	27.1	1,727	90,980
Race/Ethnicity*						
White	16.1	1.9	12.4	19.9	494	20,639
Black	31.3	2.4	26.5	36.0	379	12,924
Hispanic	29.9	2.2	25.4	34.3	765	54,365
Other	15.4	4.5	6.7	24.2	88	3,052
Age (years)*						
<u>≤</u> 17	33.2	6.6	20.2	46.2	84	5,750
	31.5	5.0	21.8	41.2	143	9,184
20-24	34.2	3.1	28.1	40.3	416	29,520
25-34	19.2	1.7	15.8	22.7	832	35,905
≥35	20.4	3.4	13.7	27.2	252	10,621
Annual Household Income*						
<\$15K	37.8	2.6	32.7	42.8	662	48,820
≥\$15K to <\$25K	28.8	3.7	21.5	36.1	262	16,934
≥\$25K to <\$50K	22.8	3.4	16.0	29.5	264	13,512
_ >\$50K	4.9	1.1	2.7	7.0	424	4,953
<12	41.2	3.1	35.0	47.4	432	36,965
12	31.7	2.9	26.0	37.3	461	32,487
>12	12.1	1.4	9.3	14.8	833	21,528
Marital Status*						
Married	18.2	1.6	15.1	21.4	958	39,467
Unmarried	33.3	2.3	28.8	37.7	769	51,512
Medicaid Recipient <sup>a</sup> *						
No	12.4	1.5	9.4	15.3	706	20,042
Yes	34.0	2.0	30.0	38.0	999	69,620
Border Resident <sup>†</sup>						
No	23.4	1.5	20.6	26.2	1,284	75,104
Yes	31.5	3.2	25.2	37.9	443	15,875
INFANT						
Birth Weight						
Low (<2500 g)	26.4	2.3	22.0	30.9	385	7,446
Normal ( <u>&gt;</u> 2500g)	24.3	1.4	21.5	27.1	1,342	83,533
Gestational Age						
<37 Weeks (preterm)	20.2	2.9	14.6	25.9	350	8,051
≥37 Weeks	25.0	1.5	22.2	27.9	1,377	82,928

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Table 18. Characteristics of Women Not Receiving Prenatal Care as Early as Desired, Texas PRAMS 2010

Ol	Prevalence	Standard	95% Confidence Interval		Respondents	Estimated
Characteristics	(%)	Error	Inte Lower	erval Upper	(N=1763)	Population Affected
MATERNAL				- * *		
Overall	21.3	1.3	18.7	23.8	1,740	79,802
Race/Ethnicity						
White	18.7	2.0	14.8	22.7	497	24,149
Black	20.9	2.1	16.8	25.1	380	8,704
Hispanic	23.8	2.1	19.6	27.9	774	44,066
Other	14.7	4.2	6.5	22.9	88	2,826
Age (years)*						
<u>≤</u> 17	28.8	6.7	15.8	41.9	83	4,966
18-19	32.0	5.0	22.2	41.9	145	9,738
20-24	28.5	3.0	22.7	34.3	422	24,789
25-34	17.5	1.7	14.2	20.8	836	32,964
<u>≥</u> 35	14.0	3.0	8.1	19.9	254	7,344
<b>Annual Household Income*</b>						
<\$15K	25.6	2.3	21.1	30.1	668	33,640
≥\$15K to <\$25K	28.7	3.7	21.4	36.0	262	17,010
$\geq$ \$25K to <\$50K	27.7	3.7	20.4	35.1	265	16,433
≥\$50K	8.0	1.6	4.9	11.1	426	8,186
Education (years) <sup>†</sup>						
<12	22.6	2.6	17.4	27.7	433	20,664
12	26.0	2.7	20.7	31.2	468	27,073
>12	17.9	1.7	14.5	21.3	838	32,065
Marital Status*						
Married	17.8	1.6	14.6	21.0	960	38,874
Unmarried	26.0	2.1	22.0	30.1	780	40,928
Medicaid Recipient <sup>a</sup> *						
No	9.3	1.3	6.8	11.9	711	15,209
Yes	30.7	2.0	26.8	34.6	1,006	63,755
<b>Border Resident</b>						
No	20.5	1.4	17.7	23.2	1,295	66,467
Yes	26.2	3.1	20.0	32.3	445	13,335
INFANT						
Birth Weight						
Low (<2500 g)	22.7	2.2	18.4	26.9	386	6,394
Normal (≥2500g)	21.1	1.4	18.4	23.9	1,354	73,408
Gestational Age						
<37 Weeks (preterm)	21.5	3.1	15.4	27.5	351	8,651
≥37 Weeks	21.2	1.4	18.5	24.0	1,389	71,151

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

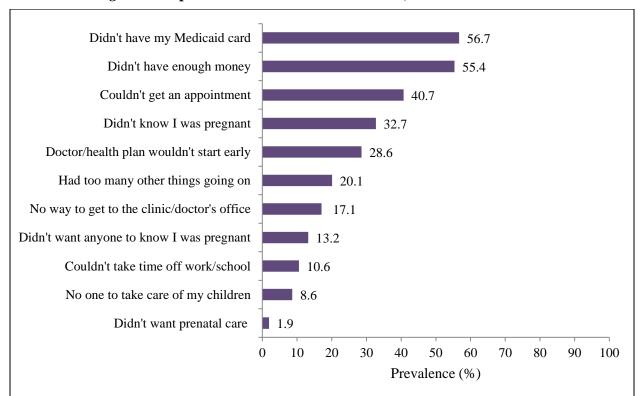


Figure 2. Reported Barriers to Prenatal Care, Texas PRAMS 2010

Note: Percentages will not add to 100 because respondents can check more than one reason.

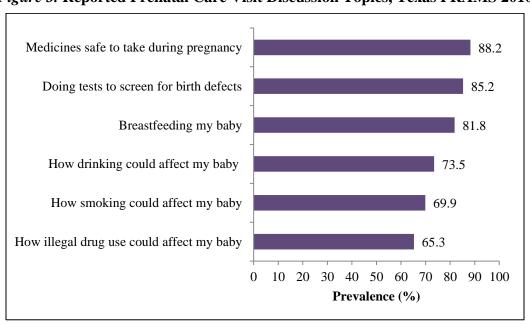


Figure 3. Reported Prenatal Care Visit Discussion Topics, Texas PRAMS 2010

Note: Percentages will not add to 100 because respondents can check more than one reason.

### LABOR INDUCTION

Medical indications for induced labor include but are not limited to the following: post-term pregnancy, certain maternal medical conditions (such as high blood pressure or diabetes), and placental abruption.<sup>22</sup> The nationwide rate of inductions has increased from 9.5 percent in 1990 to 23.2 percent in 2009.<sup>23,24</sup> This increase cannot be explained by an increase in clinical indications alone, and it has been suggested that elective (those with no underlying medical reason) inductions are responsible for much of the increase.<sup>25</sup> There is concern about the increase in elective inductions, specifically those prior to 39 weeks, as this may increase the risk of infant morbidities and is of no benefit to the mother or baby. ACOG recommends against elective inductions prior to 39 weeks.<sup>22</sup>

Texas PRAMS data from 2010 indicate that overall, approximately 45 percent of women were induced (Table 19). This estimate is considerably higher than the rate from the 2010 Texas vital records data (26 percent).<sup>26</sup> This difference may be explained by underreporting on birth certificates.<sup>27</sup> Women who delivered at gestational age greater than or equal to 37 weeks and those who had babies with normal birth weight (>=2,500 g) had significantly higher rates of labor induction.

Women were asked why their doctor, nurse, or other health care worker tried to induce labor. They were given a list of reasons and asked to check *all* of the reasons that applied (Figure 4). Non-medical reasons included the following: "I wanted to schedule my delivery" (20.1 percent) and/or "I wanted to give birth with a specific health care provider" (11.6 percent). Reported medical reasons included the following: "My health care provider worried about the size of the baby" (19.9 percent); "I was past my due date" (17.8 percent); "I had a health problem and needed to deliver the baby" (14.6 percent); "My water broke and there was a fear of infection" (11.4 percent); and/or "My baby was not doing well and needed to be born" (4.4 percent).

The most common reason checked was "Other" (30.8 percent). If women checked "Other" they were also asked to explain the reason. Women who completed the survey by mail gave a written response, and women who completed the survey by phone gave a verbal response that was transcribed by the telephone interviewer. There were many different explanations given for the "Other" responses, including explanations that may fall into one of the listed reasons above (medical or non-medical/elective). There were also explanations that cannot be categorized in a meaningful way (when a response was incoherent, incomplete or not applicable to the question). Reviewing and categorizing each explanation for the "Other" responses fell outside of the scope of this report.

<sup>&</sup>lt;sup>22</sup> ACOG Practice Bulletin No. 107: Induction of Labor. Obstet Gynecol. 2009: 114 (2 Pt 1); 386-97

<sup>&</sup>lt;sup>23</sup> Martin JA, Hamilton BE, Ventura SJ, Osterman MJK, Kirmeyer S, Mathews TJ, Wilson EC. Births: Final data for 2009. National vital statistics reports; vol 60 no 1. Hyattsville, MD: National Center for Health Statistics. 2011. <sup>24</sup> Caughey AB, et al. Maternal outcomes of elective induction of labor. AHRQ publication no. 09-E005. March

<sup>&</sup>lt;sup>25</sup> Zhang J, Yancey MK, Henderson CE. U.S. national trends in labor induction, 1989-1998. J Reprod Med. 2002:47(2);120-124.

<sup>&</sup>lt;sup>26</sup> 2010 Natality File, Texas Department of State Health Services

<sup>&</sup>lt;sup>27</sup> Northam S, Knapp TR. The reliability and validity of birth certificates. J Obst Gyn Neo. 2006: 35(1):3-12

Table 19. Characteristics of Women Who Reported Labor Induction, Texas PRAMS 2010

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1763)	Estimated Population
	(70)	EIIOI	Lower	Upper	(14–1703)	Affected
MATERNAL						
Overall	44.6	1.5	41.5	47.6	1,719	165,516
Race/Ethnicity*						
White	50.5	2.6	45.5	55.6	492	64,509
Black	45.5	2.6	40.5	50.6	378	18,826
Hispanic	40.6	2.4	35.8	45.3	761	74,071
Other	40.8	6.1	28.9	52.7	87	8,053
Age (years)						
<u>≤</u> 17	56.1	7.2	41.9	70.3	83	9,425
18-19	52.5	5.4	41.9	63.1	144	15,569
20-24	47.4	3.2	41.0	53.7	415	40,714
25-34	42.6	2.2	38.3	46.8	828	79,547
<u>&gt;</u> 35	38.9	4.0	31.1	46.6	249	20,261
<b>Annual Household Income</b>						
<\$15K	43.2	2.6	38.2	48.3	665	56,624
≥\$15K to <\$25K	50.1	4.0	42.2	58.0	262	29,682
≥\$25K to <\$50K	44.3	4.0	36.5	52.1	264	26,331
≥\$50K	43.6	2.8	38.1	49.1	427	44,506
<b>Education (years)</b>						
<12	40.1	3.1	34.0	46.2	423	35,906
12	48.3	3.1	42.2	54.3	461	49,156
>12	44.8	2.2	40.6	49.0	834	80,454
<b>Marital Status</b>						
Married	43.7	2.0	39.7	47.6	953	94,880
Unmarried	45.8	2.4	41.1	50.6	766	70,636
Medicaid Recipient <sup>a</sup>						
No	42.1	2.2	37.7	46.5	711	68,693
Yes	46.6	2.1	42.5	50.8	1,004	96,735
<b>Border Resident</b>						
No	45.1	1.7	41.8	48.5	1,278	144,881
Yes	41.1	3.2	34.9	47.3	441	20,635
INFANT						
Birth Weight*						
Low (<2500 g)	32.8	2.5	28.0	37.7	375	9,024
Normal (≥2500g)	45.5	1.6	42.3	48.7	1,344	156,492
Gestational Age*						
<37 Weeks (preterm)	28.4	3.3	21.8	35.0	344	11,258
>37 Weeks	46.5	1.7	43.2	49.8	1,375	154,258

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

<sup>\*</sup>Denotes a significant difference within the subgroup.

**Prevalence:** Estimated percent of Texas women with the specified indicator.

**Respondents:** Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

### **CESAREAN SECTION**

Medical indications for cesarean section (C-section) include fetal problems such as abnormal heart rate or abnormal position; maternal health problems such as preeclampsia; problems with labor and delivery such as the size of the baby; and problems with the placenta or umbilical cord. C-section was the most common surgical procedure performed in U.S. hospitals in 2006, and nationwide rates of C-section have been on the rise since 1996 among all age groups, racial and ethnic groups, and gestational ages. In 2009 the cesarean birth rate was at an all-time high in the U.S., at 32.9 percent. The World Health Organization (WHO) has recommended that the C-section rate should be no higher than 10 to 15 percent. Compared with vaginal births, C-sections may increase health risks to both the mother and baby; they require longer hospitalizations; and hospital charges for a C-section are almost twice that of vaginal delivery.

The 2010 Texas PRAMS data indicated that 34.4 percent of women delivered via C-section (Table 20). This estimate was near the rate obtained from the 2010 Texas birth certificate data (35.1 percent). Women who delivered prior to 37 weeks gestation and those who delivered babies with low birth weight were significantly more likely to report delivery via C-section. Women who were border residents (40.9 percent) were significantly more likely to report delivery via C-section than non-border residents (33.4 percent). Women were asked why their new baby was born by cesarean delivery. They were given a list of reasons and asked to check *all* of the reasons that applied (Figure 5).

Non-medical reasons included "I wanted to schedule my delivery" (9.4 percent) and/or "I didn't want to have my baby vaginally" (5.6 percent). Medical reasons included the following: "My baby was in the wrong position" (15.1 percent); "Labor was taking too long" (14.5 percent); "I had a medical condition that made labor dangerous for me" (14.2 percent); "The fetal monitor showed that my baby was having problems during labor" (14.1 percent); "Labor induction didn't work" (13.7 percent); "My health care provider worried that my baby was too big" (12.9 percent); and/or "I was past my due date" (5.4 percent).

The most common reason reported for C-section was a prior cesarean delivery (46.2 percent). The second most common reason for C-section was "Other" (26.8 percent). If women checked "Other" they were also asked to explain the reason. There are many different explanations given for the "Other" responses including ones that may have fallen into one of the listed reasons (medical or non-medical/elective) and ones that were incoherent, incomplete or not applicable to the question. Reviewing and categorizing each explanation for the "Other" responses fell outside of the scope of this report.

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<sup>&</sup>lt;sup>28</sup> Gabbe SG, Niebyl JR, Simpson JL, ed. Obstetrics: Normal and Problem Pregnancies. 5th ed. New York, NY: Churchill Livingstone; 2007: 945-1004.

<sup>&</sup>lt;sup>29</sup> Russo CA, Wier L, Steiner C. Hospitalizations related to childbirth, 2006. HCUP Statistical Brief # 71. U.S. Agency for Healthcare Research and Quality, Rockville, MD. April 2009.

<sup>&</sup>lt;sup>30</sup> Menacker F, Hamilton BE. Recent trends in cesarean delivery in the United States. NCHS data brief, no 35. Hyattsville, MD: National Center for Health Statistics. 2010

<sup>&</sup>lt;sup>31</sup> Martin JA, Hamilton BE, Ventura SJ, Osterman MJK, Kirmeyer S, Mathews TJ, Wilson EC. Births: Final data for 2009. National vital statistics reports; vol 60 no 1. Hyattsville, MD: National Center for Health Statistics. 2011.

<sup>&</sup>lt;sup>32</sup> World Health Organization. Appropriate technology for birth. Lancet 1985; 2: 436-7.

<sup>&</sup>lt;sup>33</sup> 2010 Natality File, Texas Department of State Health Services.

Table 20. Characteristics of Women Who Reported Cesarean Section Delivery, Texas PRAMS 2010

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1763)	Estimated Population
	(70)	EITOI	Lower	Upper	(N=1703)	Affected
MATERNAL						
Overall	34.4	1.4	31.6	37.2	1,737	128,754
Race/Ethnicity						
White	37.3	2.4	32.5	42.1	497	48,121
Black	36.4	2.5	31.5	41.2	382	15,192
Hispanic	31.7	2.2	27.4	36.1	769	58,148
Other	36.9	5.9	25.3	48.4	88	7,292
Age (years)*						
<u>≤</u> 17	17.4	4.7	8.2	26.6	84	3,019
	32.4	5.0	22.7	42.1	147	9,767
20-24	27.3	2.7	21.9	32.7	420	23,716
25-34	36.8	2.1	32.7	40.9	834	68,951
≥35	44.5	4.1	36.5	52.5	252	23,302
<b>Annual Household Income*</b>						
<\$15K	30.1	2.3	25.7	34.5	680	40,192
$\geq$ \$15K to <\$25K	30.3	3.6	23.2	37.3	264	17,996
$\geq$ \$25K to <\$50K	28.8	3.4	22.1	35.5	268	17,204
≥\$50K	45.2	2.9	39.6	50.8	425	45,981
Education (years)*						
<12	29.6	2.8	24.1	35.0	432	26,808
12	29.8	2.7	24.6	35.1	466	30,726
>12	39.4	2.1	35.2	43.5	838	70,880
Marital Status*						
Married	37.8	1.9	34.0	41.6	958	82,087
Unmarried	29.7	2.1	25.6	33.9	779	46,667
Medicaid Recipient <sup>a*</sup>						
No	40.0	2.2	35.6	44.4	713	65,254
Yes	30.2	1.8	26.6	33.8	1021	63,422
Border Resident <sup>†</sup>						
No	33.4	1.6	30.3	36.5	1290	107,839
Yes	40.9	3.2	34.6	47.1	447	20,915
INFANT						
Birth Weight*						
Low (<2500 g)	52.9	2.6	47.8	58.0	383	14,851
Normal ( <u>&gt;</u> 2500g)	32.9	1.5	29.9	35.9	1354	113,903
Gestational Age*						
<37 Weeks (preterm)	50.9	3.8	43.6	58.3	351	20,684
≥37 Weeks	32.4	1.5	29.4	35.4	1386	108,070

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).



Figure 4. Reported Reasons for Labor Induction, Texas PRAMS 2010

Note: Percentages will not add to 100 because respondents can check more than one reason.

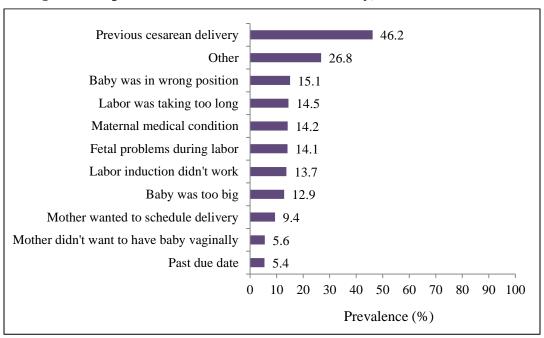


Figure 5. Reported Reasons for Cesarean Delivery, Texas PRAMS 2010

Note: Percentages will not add to 100 because respondents can check more than one reason.

#### BREASTFEEDING

Breastfeeding is the best source of nutrition for infants. Breast milk has just the right amount of nutrients and antibodies to nourish and protect infants from disease, and it is easier for babies to digest than formula. Breastfeeding has also been shown to be protective against SIDS. 34,35

There are also numerous benefits to mothers: it can save money that would otherwise be spent on formula; help with postpartum weight loss; and it can also help to establish and strengthen the bond between mother and baby, since physical contact is important to newborns. Additionally, breastfeeding has been associated with a lower risk of Type 2 diabetes, breast cancer, ovarian cancer, and postpartum depression in women. Infants who are breastfed are sick less often than those who are not breastfed, so women who breastfeed miss fewer days of work.<sup>34</sup>

The AAP recommends that babies be exclusively breastfed for the first six months, and that babies should continue to breastfeed throughout the first year and for as long as is mutually desired by the mother and baby. Barriers to breastfeeding include lack of knowledge of the specific benefits of breastfeeding, social norms, poor family and social support, embarrassment, lactation problems; lack of flexibility in work hours and locations for breastfeeding, expressing milk, and storing milk; and lack of breastfeeding support and education in the hospital setting.<sup>36</sup>

The Healthy People 2010 objectives were that 75 percent of mothers initiate breastfeeding; 50 percent continue breastfeeding for six months; and 25 percent continue breastfeeding for one year. The CDC's 2010 National Immunization Survey (NIS) Texas results indicated that 75.8 percent of women initiated breastfeeding; 43.6 percent were breastfeeding at six months; and 21.8 percent were breastfeeding at one year.<sup>37</sup> Texas met the objective for initiation of breastfeeding, but fell short of the objectives for breastfeeding at six months and at one year.

The 2010 Texas PRAMS estimate for breastfeeding initiation was 85.9 percent (Table 21), which was higher than the NIS estimate of 75.8 percent. Black women (75.1 percent) and White women (81.8 percent) had the lowest rates, while Hispanics (90.5 percent) and women of Other race/ethnicity (92.5 percent) had the highest rates. Breastfeeding initiation rates generally increased with maternal age, income, and education. Women with some college were significantly more likely than those with a high school education or less to report ever breastfeeding, at 90.8 percent. Married women (90.4 percent) and those who did not have their delivery paid by Medicaid (90.9 percent) were significantly more likely to report breastfeeding. Women were asked for reasons that they did not initiate breastfeeding. The most common reasons checked were: "I didn't want to;" "I didn't like breastfeeding;" and "I tried but it was too hard" (Figure 6). Women were also asked about hospital related experiences with breastfeeding (Figure 7). Over 90 percent responded that hospital staff gave them breastfeeding information, while 73.1 percent said that the hospital gave them a gift pack with formula.

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<sup>&</sup>lt;sup>34</sup> U.S. Department of Health and Human Services Office on Women's Health. Why Breastfeeding is Important. Accessed on February 15, 2012 at http://www.womenshealth.gov/breastfeeding/why-breastfeeding-is-important/ Hauck FR, Thompson JMD, et al. Breastfeeding and reduced risk of sudden infant death syndrome: a meta-analysis. *Pediatrics*. 2011: 128 (1)

U.S. Department of Health and Human Services. The Surgeon General's Call to Action to Support Breastfeeding.
 Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General; 2011
 Centers for Disease Control and Prevention. Breastfeeding Report Card 2009, United States: Outcome Indicators.
 Accessed on March 14, 2012 at http://www.cdc.gov/breastfeeding/pdf/BreastfeedingReportCard2010.pdf

Table 21. Characteristics of Women Reporting Ever Breastfeeding, Texas PRAMS 2010

Characteristics	Prevalence	Standard Error	95% Confidence Interval		Respondents	Estimated
	(%)		Inte Lower	rval Upper	(N=1763)	Population Affected
MATERNAL			Lower	Оррсі		11110000
Overall	85.9	1.0	83.9	87.9	1,694	315,560
Race/Ethnicity*				0,1,5	-,	2 -2 ,2 2 3
White	81.8	2.0	77.8	85.7	479	102,530
Black	75.1	2.3	70.6	79.6	371	30,495
Hispanic	90.5	1.4	87.8	93.1	756	164,280
Other	92.5	3.3	85.9	99.0	87	18,255
Age (years)*						•
≤17	82.5	5.7	71.4	93.6	76	12,877
	79.5	4.3	71.0	87.9	142	23,370
20-24	78.1	2.6	73.1	83.2	412	65,976
25-34	89.6	1.2	87.2	92.0	815	166,357
≥35	90.1	2.2	85.7	94.6	249	46,980
Annual Household Income*						,
<\$15K	79.8	2.0	75.8	83.7	657	103,477
≥\$15K to <\$25K	86.4	2.5	81.5	91.4	257	50,368
≥\$25K to <\$50K	91.0	2.0	87.2	94.9	260	52,962
- >\$50K	89.7	1.7	86.3	93.1	424	91,400
Education (years)*						
<12	81.6	2.4	76.9	86.2	411	71,166
12	81.1	2.2	76.8	85.3	457	82,251
>12	90.8	1.2	88.4	93.1	825	161,803
Marital Status*						
Married	90.4	1.1	88.3	92.5	944	194,728
Unmarried	79.5	1.9	75.9	83.2	750	120,832
Medicaid Recipient <sup>a</sup> *						
No	90.9	1.3	88.4	93.3	699	147,249
Yes	81.9	1.5	79.0	84.9	993	167,698
Border Resident						
No	85.9	1.1	83.7	88.0	1,249	271,584
Yes	86.2	2.3	81.7	90.8	445	43,977
INFANT						
Birth Weight <sup>†</sup>						
Low (<2500 g)	81.1	2.1	77.0	85.3	358	21,349
Normal ( <u>&gt;</u> 2500g)	86.3	1.1	84.2	88.4	1,336	294,211
Gestational Age†						
<37 Weeks (preterm)	86.5	2.5	81.5	91.5	326	33,550
≥37 Weeks	85.8	1.1	83.7	88.0	1,368	282,010

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

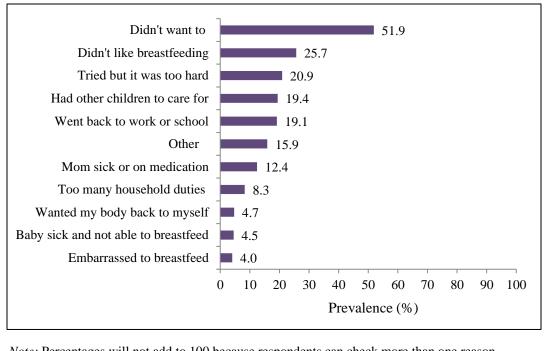


Figure 6. Reasons for Not Initiating Breastfeeding, Texas PRAMS 2010

Note: Percentages will not add to 100 because respondents can check more than one reason.

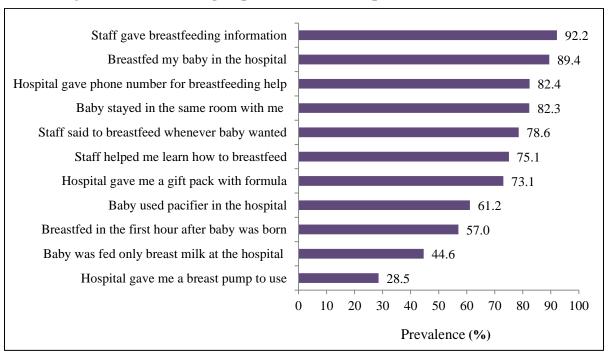


Figure 7. Breastfeeding Experience in the Hospital, Texas PRAMS 2010

Note: Percentages will not add to 100 because respondents can check more than one reason.

## **ORAL HEALTH**

Dental visits should be a routine part of prenatal health care. The two most common diseases of the mouth, caries (cavities) and periodontal disease, are associated with preterm birth and low birth weight. Also, cavities in a mother can affect her infant's risk of developing early dental cavities. Unfortunately, oral health during pregnancy is often overlooked. Barriers to routine dental care during pregnancy include lack of dental insurance coverage, lack of knowledge of the effects of dental health on pregnancy, and concerns about fetal safety. 38

National PRAMS data from 1998 indicated that only 23 to 35 percent of women in the United States reported dental care use during pregnancy.<sup>39</sup> Additionally, of those who reported having a dental problem during pregnancy, only one-half reported receiving dental care for it.

The 2010 PRAMS survey asked women if they had their teeth cleaned by a dentist or dental hygienist during any of the following time periods: 12 months before pregnancy, during pregnancy, and/or after pregnancy. For this report, responses to all three questions were combined to report the overall percent with teeth cleanings during *any* of the above time periods (before, during, and/or after pregnancy).

Overall, 48.5 percent of women had *not* had their teeth cleaned during any of these time periods (Table 22). This means that approximately one-half of women surveyed had not had their teeth cleaned in the past two years. Hispanic women had the highest rate of no teeth cleaning, at 53.3 percent, which was significantly higher than the rate for Black (45.6 percent) and White (42.6 percent) women. Among the different age groups, women aged 20 and older were more likely than women aged 19 and younger to report not having a teeth cleaning. Rates varied from 56.1 percent among women aged 20-24 to 28.2 percent among women aged 17 and younger. Rates decreased with increasing income. Women with the lowest annual household income (less than \$15,000 per year) were significantly more likely (56.9 percent) than those with an annual household income of \$50,000 per year or more (31.6 percent) to report not getting their teeth cleaned. Additionally, the following groups of women were significantly more likely to report not having their teeth cleaned since 12 months before pregnancy: those with a high school education or less; those who were unmarried; and those who had their delivery paid by Medicaid.

<sup>&</sup>lt;sup>38</sup> Silk H, Douglass AB, et al. Oral health during pregnancy. Am Fam Physician. 2009:77(8);1139-1144.

<sup>&</sup>lt;sup>39</sup> Gaffield ML, Gilbert BJC, et al. Oral health during pregnancy: an analysis of information collected by the Pregnancy Risk Assessment Monitoring System. *J Am Dent Assoc.* 2001:132;1009-1016

Table 22. Characteristics of Women Without a Teeth Cleaning in the Past Two Years, Texas PRAMS 2010

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1763)	Estimated Population
	(70)	EIIOI	Lower	Upper	(14-1703)	Affected
MATERNAL						
Overall	48.5	1.6	45.4	51.5	1,725	179,295
Race/Ethnicity <sup>†</sup>						
White	42.6	2.5	37.7	47.6	495	54,648
Black	45.6	2.6	40.6	50.7	379	18,910
Hispanic	53.3	2.5	48.4	58.1	762	96,128
Other	48.6	6.1	36.5	60.6	88	9,609
Age (years)*						
<u>≤</u> 17	28.2	6.3	15.7	40.6	83	4,862
18-19	37.5	5.1	27.4	47.5	146	11,318
20-24	56.1	3.2	49.7	62.4	420	48,931
25-34	49.3	2.2	45.0	53.6	824	90,403
<u>≥</u> 35	45.8	4.1	37.7	53.8	252	23,781
<b>Annual Household Income*</b>						
<\$15K	56.9	2.6	51.8	61.9	668	73,879
≥\$15K to <\$25K	54.2	4.0	46.3	62.0	264	32,184
≥\$25K to <\$50K	50.5	4.0	42.7	58.3	265	29,598
≥\$50K	31.6	2.7	26.3	36.9	425	32,194
Education (years)*						
<12	57.4	3.2	51.2	63.6	429	51,392
12	56.9	3.0	51.0	62.9	463	57,943
>12	39.2	2.1	35.1	43.4	832	69,960
Marital Status <sup>†</sup>						
Married	45.2	2.0	41.3	49.2	954	97,749
Unmarried	53.0	2.4	48.3	57.8	771	81,545
Medicaid Recipient <sup>a</sup> *						
No	38.7	2.3	34.3	43.1	704	62,305
Yes	56.4	2.1	52.3	60.5	1,010	116,465
<b>Border Resident</b>						
No	48.3	1.7	44.9	51.6	1,283	154,284
Yes	49.7	3.3	43.3	56.1	442	25,011
INFANT						
Birth Weight <sup>†</sup>						
Low (<2500 g)	55.2	2.6	50.1	60.3	382	15,433
Normal ( <u>&gt;</u> 2500g)	47.9	1.7	44.7	51.2	1,343	163,862
Gestational Age						
<37 Weeks (preterm)	52.2	3.8	44.8	59.6	348	21,057
>37 Weeks	48.0	1.7	44.7	51.3	1,377	158,237

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

### INFANT HEALTH AND SAFETY

Well-baby exams, which are regular health visits that typically occur at two, four, or six months of age, are important because they involve growth assessment, vaccinations, and developmental evaluations. The Texas PRAMS survey asked women if their baby has had a well-baby checkup. Overall, 97.4 percent of women reported taking their baby for a well-baby checkup (Table 23). Women were also asked if their baby had well-baby shots or vaccinations before the child was three months old (exclusive of shots received in the hospital). Overall, 90.5 percent of women reported that their baby received well-baby shots/vaccinations (data not shown).

Nationally, SIDS is the leading cause of death among infants one to 12 months of age. In the Texas 2010 mortality data, SIDS is the third leading cause of infant death. <sup>40</sup> Placing infants on their backs to sleep has been consistently identified as a way to reduce the risk of SIDS. The AAP recommends that for all sleep, infants should be placed *only* on their back. <sup>41</sup>

Additional AAP recommendations to reduce the risk of SIDS include placing infants on a firm sleeping surface and removing soft materials (pillows, quilts, bumper pads, stuffed toys) from the infant's sleeping environment. Although placing infants in bed with adults to sleep should be avoided, a separate but proximate sleeping environment is recommended. Pacifier use during sleep is also recommended since it has also been shown to reduce the risk of SIDS. To avoid overheating, infants should be placed in light clothing, and care should be taken to not overbundle. Smoking should be avoided, as well as the use of home monitors and/or devices that are marketed to reduce the risk of SIDS. Flattening of the head (also known as plagiocephaly) can be avoided by increasing "tummy time" while the baby is awake, and avoiding long periods of time in car seats or bouncers.<sup>41</sup>

The Texas PRAMS survey asked, "How do you *most often* lay your baby down to sleep now?" The response options are "On his or her side," "On his or her back," or "On his or her stomach." Although respondents were asked to check only *one* answer, many women checked more than one answer. Table 24 represents women who checked only "On his or her back." Overall, 66.0 percent of women reported that they most often lay their baby down to sleep on his or her back. Black women had the lowest reported rate, at 42.0 percent, which was significantly lower than the rate for all other race/ethnicity groups. Rates generally increased with increasing age, income, and education. Married women and those who did not have their delivery paid for by Medicaid had significantly higher rates when compared to unmarried women and non-Medicaid recipients. Also, women who resided in border counties had a significantly lower rate (54.6 percent) than non-border women (67.8 percent).

<sup>&</sup>lt;sup>40</sup> 2010 Mortality File, Texas Department of State Health Services.

<sup>&</sup>lt;sup>41</sup> American Academy of Pediatrics. Policy Statement -- The Changing Concept of Sudden Infant Death Syndrome: Diagnostic Coding Shifts, Controversies Regarding the Sleeping Environment, and New Variables to Consider in Reducing Risk. *Pediatrics*. 2005:116(5);1245-1255

Table 23. Characteristics of Women Reporting a Well-Baby Checkup, Texas PRAMS 2010

	Prevalence	Standard Error	95% Confidence Interval		Respondents	Estimated
Characteristics	(%)		Inte Lower	rval Upper	(N=1763)	Population Affected
MATERNAL	-		201101	оррег		
Overall	97.4	0.5	96.4	98.4	1,678	355,355
Race/Ethnicity						
White	97.7	0.8	96.2	99.2	473	120,918
Black	97.9	0.8	96.3	99.5	365	39,124
Hispanic	97.1	0.8	95.4	98.7	752	175,908
Other	98.3	1.7	94.9	100.0	87	19,405
Age (years)						
≤17	96.0	3.0	90.0	100.0	76	15,355
18-19	95.5	1.9	91.8	99.3	141	27,793
20-24	98.0	1.0	96.1	99.9	404	81,115
25-34	97.3	0.7	95.9	98.8	809	179,978
<u>≥</u> 35	98.2	1.1	96.0	100.0	248	51,115
Annual Household Income*						
<\$15K	96.1	1.0	94.1	98.1	651	123,992
≥\$15K to <\$25K	99.2	0.3	98.5	99.9	255	57,613
$\geq$ \$25K to <\$50K	96.1	1.7	92.7	99.5	257	55,412
≥\$50 <b>K</b>	98.7	0.7	97.4	100.0	422	100,137
Education (years)*						
<12	95.3	1.4	92.6	98.0	408	82,933
12	96.5	1.2	94.2	98.8	451	96,775
>12	98.9	0.4	98.2	99.7	818	175,307
Marital Status						
Married	97.8	0.6	96.6	99.0	940	210,075
Unmarried	96.8	0.9	95.2	98.5	738	145,281
Medicaid Recipient <sup>a</sup>						
No	97.7	0.7	96.3	99.1	692	157,073
Yes	97.2	0.7	95.8	98.6	984	197,669
Border Resident						
No	97.4	0.6	96.2	98.5	1,235	305,721
Yes	97.6	0.6	96.4	98.8	443	49,634
INFANT						•
Birth Weight						
Low (<2500 g)	98.3	0.7	97.0	99.7	350	25,283
Normal (≥2500g)	97.3	0.5	96.3	98.4	1,328	330,072
Gestational Age <sup>†</sup>					•	,
<37 Weeks (preterm)	99.1	0.4	98.3	99.9	317	37,533
≥37 Weeks	97.2	0.6	96.1	98.3	1,361	317,823

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Table 24. Characteristics of Women Reporting Placing Infant on Back to Sleep, Texas PRAMS 2010

Characteristics	Prevalence (%)	Standard Error	95% Confidence Interval		Respondents (N=1763)	Estimated Population
	(70)	EITOI	Lower	Upper	(N=1703)	Affected
MATERNAL	66.0	1.4	63.1	68.8	1675	240,305
Overall						
Race/Ethnicity*						
White	74.3	2.3	69.9	78.8	476	92,749
Black	42.0	2.6	36.9	47.1	363	16,710
Hispanic	65.2	2.3	60.6	69.7	750	117,724
Other	68.8	5.9	57.3	80.2	85	13,122
Age (years)*						
<u>≤</u> 17	47.6	7.7	32.6	62.6	75	7,385
	54.8	5.4	44.1	65.4	142	16,108
20-24	64.2	3.0	58.3	70.1	405	53,321
25-34	69.3	2.0	65.4	73.3	806	128,008
<u>≥</u> 35	68.6	3.8	61.1	76.0	247	35,483
Annual Household						
Income*						
<\$15K	61.9	2.5	56.9	66.8	649	79,591
<u>&gt;</u> \$15K to <\$25K	59.5	4.0	51.7	67.2	255	34,544
≥\$25K to <\$50K	62.5	3.9	54.9	70.2	258	36,268
≥\$50K	79.3	2.3	74.9	83.8	420	80,156
Education (years)*						
<12	58.0	3.2	51.7	64.3	406	50,176
12	62.2	2.9	56.4	68.0	451	62,510
>12	71.9	1.9	68.2	75.6	817	127,278
Marital Status*						
Married	71.6	1.8	68.1	75.2	936	153,447
Unmarried	57.8	2.4	53.1	62.5	739	86,858
Medicaid Recipient <sup>a*</sup>						
No	72.0	2.1	68.0	76.1	689	115,452
Yes	61.3	2.0	57.4	65.3	984	124,764
<b>Border Resident*</b>						
No	67.8	1.6	64.7	70.9	1233	212,616
Yes	54.6	3.3	48.1	61.0	442	27,689
INFANT						
Birth Weight						
Low (<2500 g)	62.0	2.6	56.9	67.2	350	15,945
Normal ( <u>≥</u> 2500g)	66.2	1.5	63.2	69.3	1,325	224,360
Gestational Age*					•	•
<37 Weeks (preterm)	55.7	4.0	48.0	63.5	317	21,234
≥37 Weeks	67.1	1.5	64.1	70.2	1,358	219,071

<sup>&</sup>lt;sup>a</sup> Delivery paid for by Medicaid.

<sup>\*</sup>Denotes a significant difference within the subgroup.

**Prevalence:** Estimated percent of Texas women with the specified indicator.

**Respondents:** Total number of mothers who responded to this question.

Estimated Population Affected: Estimated number of Texas women with the specified indicator.

### MATERNAL POSTPARTUM EXPERIENCE

Maternal postpartum health care typically occurs during the six weeks following birth, and it is a critical component of women's health care. Postpartum maternal morbidities can include fatigue, depression, breastfeeding problems, backaches, headaches, and other physical morbidities. Additionally, studies have shown that poor maternal physical health is associated with a reduction in children's general physical health. Maternal postpartum health is an often neglected part of women's health care, and there are missed opportunities for enhancing postpartum care for women.<sup>42</sup> The typical postpartum checkup is limited to vaginal examination and contraceptive education.<sup>42</sup>

In the 2010 Texas PRAMS survey, 13.4 percent of women reported that they did *not* receive a postpartum checkup (Table 25). The rates of not receiving a postpartum checkup increased with decreasing income and education. Women who were unmarried, on Medicaid, and those who were border residents had significantly higher rates of not receiving a postpartum checkup. Women residing in the border counties had a rate (22.4 percent) that was approximately twice as high as non-border residents (12 percent).

Women were also asked if they were using contraception at the time of the survey (two to six months after giving birth). Overall, 83.5 percent of women responded that they were using contraception (Table 26). Women who resided in the border counties had a significantly lower rate of postpartum contraceptive use (76.3 percent) than non-border women (84.6 percent).

Screening for postpartum depression is also recommended. In a national survey conducted in 2006, approximately 58 percent of mothers reported that their provider asked about depression. In the 2010 Texas PRAMS survey, 70.5 percent of women reported that, at some point during their pregnancy or after delivery, a healthcare worker talked with them about "baby blues" or postpartum depression (Table 27). Black women had the highest rate, at 73.4 percent.

Postpartum depression questions were added in Phase 6 of the Texas PRAMS survey (years 2009-2011). Women were asked how often they have felt or experienced the following after childbirth: "I felt down, depressed, or sad."; "I felt hopeless."; and "I felt slowed down." For each response, women were asked to use the following scale: never=1, rarely=2, sometimes=3, often=4, and always=5. Using an algorithm developed by the CDC's Division of Reproductive Health and researchers at the University of Iowa, a cutoff of  $\geq$ 10 after summing each depression question was used as an indication of postpartum depressive symptoms. <sup>44</sup>

Overall, 12.9 percent of women reported postpartum depressive symptoms (Table 28). Women with the lowest annual household incomes (less than \$15,000 per year) had significantly higher rates of postpartum depressive symptoms (15.8 percent) than those with incomes at or greater than \$50,000 per year (8.0 percent). Unmarried women (17.7 percent) also had significantly higher rates of postpartum depressive symptoms than married women (10.2 percent).

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<sup>&</sup>lt;sup>42</sup> Cheng CY, Fowles ER, et al. Postpartum maternal health care in the United States: a critical review. *J Perinat Educ.* 2006:15(3);34-42.

<sup>&</sup>lt;sup>43</sup> Declercq ER, Sakala C, et al. Report of the Second National U.S. Survey of Women's Childbearing Experiences. New York: Childbirth Connection, 2006. Available at: www.childbirthconnection.org/listeningtomothers/

<sup>44</sup> A cut off of  $\geq 10$  is used when data is available for three questions; a cutoff of  $\geq 7$  is used when data is available for two questions; and a cutoff of  $\geq 4$  is used when data is available for only one question.

Table 25. Characteristics of Women Who Did Not Receive a Maternal Postpartum Checkup, Texas PRAMS 2010

Characteristics	Prevalence	Standard		nfidence rval	Respondents	Estimated Population
	(%)	Error	Lower	Upper	(N=1763)	Affected
MATERNAL						
Overall	13.4	1.0	11.3	15.4	1,727	49,797
Race/Ethnicity*						
White	10.0	1.6	6.9	13.1	498	12,955
Black	11.4	1.7	8.1	14.7	376	4,690
Hispanic	17.2	1.8	13.7	20.6	765	31,258
Other	4.5	2.4	0.0	9.2	87	895
Age (years)*						
<u>≤</u> 17	7.9	2.8	2.4	13.5	81	1,323
18-19	20.2	4.3	11.8	28.6	147	6,090
20-24	19.2	2.6	14.1	24.2	418	16,663
25-34	10.8	1.3	8.1	13.4	829	20,088
<u>&gt;</u> 35	10.9	2.5	5.9	15.8	252	5,634
<b>Annual Household Income*</b>						
<\$15K	22.1	2.2	17.8	26.3	675	29,259
$\geq$ \$15K to <\$25K	12.4	2.7	7.1	17.7	263	7,295
$\geq$ \$25K to <\$50K	8.4	2.0	4.4	12.3	268	5,008
≥\$50K	4.6	1.2	2.3	6.9	425	4,697
Education (years)*						
<12	23.5	2.7	18.3	28.7	428	21,107
12	15.3	2.2	11.0	19.6	462	15,656
>12	7.2	1.1	5.0	9.5	836	13,034
Marital Status*						
Married	10.2	1.2	7.9	12.6	953	22,132
Unmarried	17.7	1.8	14.1	21.3	774	27,665
Medicaid Recipient <sup>a</sup> *						
No	8.4	1.2	6.0	10.9	708	13,740
Yes	17.2	1.6	14.2	20.3	1,017	36,057
<b>Border Resident*</b>						
No	12.0	1.1	9.7	14.2	1,284	38,521
Yes	22.4	2.6	17.3	27.5	443	11,276
INFANT						
Birth Weight						
Low (<2500 g)	13.6	1.7	10.2	17.0	382	3,803
Normal ( <u>&gt;</u> 2500g)	13.4	1.1	11.2	15.6	1345	45,994
<b>Gestational Age</b>						
<37 Weeks (preterm)	13.3	2.6	8.3	18.4	348	5,325
≥37 Weeks	13.4	1.1	11.2	15.6	1,379	44,472

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

Table 26. Characteristics of Women Who Reported Postpartum Contraceptive Use, Texas PRAMS 2010

Characteristics	Prevalence	Standard	95% Confidence Interval		Respondents	Estimated Population
	(%)	Error	Lower	Upper	(N=1763)	Affected
MATERNAL						
Overall	83.5	1.1	81.3	85.6	1,729	311,734
Race/Ethnicity						
White	84.6	1.8	81.0	88.2	497	109,395
Black	81.4	2.0	77.4	85.4	377	33,598
Hispanic	83.6	1.7	80.2	87.0	765	152,932
Other	79.3	4.8	69.8	88.8	89	15,753
Age (years)						
<u>≤</u> 17	76.7	6.4	64.1	89.3	82	13,169
18-19	80.9	4.0	73.1	88.7	147	24,398
20-24	83.7	2.4	79.1	88.3	417	72,745
25-34	85.6	1.5	82.7	88.6	829	159,981
<u>≥</u> 35	78.9	3.1	72.8	85.1	254	41,441
<b>Annual Household Income</b> <sup>†</sup>						
<\$15K	79.6	2.0	75.6	83.6	678	106,445
$\geq$ \$15K to <\$25K	87.8	2.4	83.1	92.6	263	52,137
≥\$25K to <\$50K	85.8	2.7	80.5	91.1	266	50,774
≥\$50K	86.3	1.9	82.6	90.0	426	88,034
<b>Education (years)</b>						
<12	78.6	2.6	73.6	83.7	429	71,099
12	85.6	2.1	81.5	89.6	464	88,181
>12	84.8	1.5	81.9	87.7	835	152,454
<b>Marital Status</b>						
Married	83.7	1.5	80.8	86.5	957	182,133
Unmarried	83.1	1.7	79.7	86.5	772	129,601
Medicaid Recipient <sup>a</sup>						
No	83.2	1.7	79.9	86.5	711	135,984
Yes	83.6	1.5	80.7	86.5	1,016	175,138
Border Resident <sup>†</sup>						
No	84.6	1.2	82.2	86.9	1,284	272,834
Yes	76.3	2.9	70.6	82.0	445	38,900
INFANT						
Birth Weight						
Low (<2500 g)	79.9	2.1	75.8	84.0	381	22,332
Normal ( <u>&gt;</u> 2500g)	83.7	1.2	81.4	86.1	1,348	289,402
Gestational Age						
<37 Weeks (preterm)	79.8	3.0	73.9	85.7	347	32,190
≥37 Weeks	83.9	1.2	81.6	86.2	1,382	279,545

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Table 27. Characteristics of Women Who Reported Healthcare Worker Talk about Postpartum Depression, Texas PRAMS 2010

Characteristics	Prevalence	Standard	95% Confidence Interval		Respondents	Estimated Population
	(%)	Error	Lower	Upper	(N=1763)	Affected
MATERNAL				•		
Overall	70.5	1.4	67.7	73.3	1,720	262,063
Race/Ethnicity						
White	67.6	2.4	62.9	72.2	495	86,819
Black	73.4	2.3	68.9	77.9	378	30,357
Hispanic	72.9	2.2	68.6	77.1	761	133,165
Other	61.2	6.1	49.2	73.1	85	11,666
Age (years)*						
<u>≤</u> 17	76.3	6.1	64.4	88.2	82	13,083
	70.9	5.0	61.2	80.7	145	21,548
20-24	79.1	2.6	74.0	84.1	416	68,255
25-34	67.5	2.0	63.5	71.6	827	125,782
≥35	64.7	3.9	56.9	72.4	250	33,395
Annual Household Income*						
<\$15K	75.0	2.2	70.6	79.3	661	97,682
$\geq$ \$15K to <\$25K	71.1	3.7	63.8	78.4	260	41,416
	71.7	3.5	64.8	78.5	263	42,330
≥\$50 <b>K</b>	64.2	2.8	58.8	69.6	425	65,249
Education (years)*						
<12	76.2	2.7	70.9	81.4	421	67,994
12	76.8	2.5	71.8	81.8	467	79,549
>12	64.0	2.1	59.9	68.1	831	114,180
Marital Status*						
Married	66.5	1.9	62.7	70.2	950	143,746
Unmarried	76.1	2.0	72.2	80.0	770	118,317
Medicaid Recipient <sup>a†</sup>						
No	66.2	2.2	61.9	70.5	701	106,757
Yes	73.4	1.8	69.8	77.0	1,003	151,829
<b>Border Resident</b>						
No	70.5	1.6	67.4	73.5	1,280	226,374
Yes	70.6	2.9	64.8	76.4	440	35,690
INFANT						
Birth Weight						
Low (<2500 g)	68.9	2.4	64.1	73.6	1,342	19,071
Normal ( <u>&gt;</u> 2500g)	70.6	1.5	67.7	73.6	1,720	242,993
Gestational Age						
<37 Weeks (preterm)	69.8	3.4	63.2	76.4	345	27,557
≥37 Weeks	70.6	1.5	67.6	73.6	1,375	234,507

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

Table 28. Characteristics of Women With Postpartum Depressive Symptoms, Texas PRAMS 2010

Chanactanistics	Prevalence (%)	Standard	95% Confidence Interval		Respondents	Estimated
Characteristics		Error	Inte Lower	ervai Upper	(N=1763)	Population Affected
MATERNAL						
Overall	12.2	1.0	10.2	14.2	1,763	46,394
Race/Ethnicity						
White	12.8	1.7	9.5	16.1	500	16,652
Black	10.2	1.5	7.2	13.2	389	4,340
Hispanic	12.8	1.6	9.6	16.0	783	23,894
Other	7.6	2.9	1.8	13.3	90	1,507
Age (years)						
<u>≤</u> 17	11.3	4.6	2.3	20.2	86	1,976
	11.3	3.2	5.1	17.5	148	3,458
20-24	15.1	2.3	10.5	19.6	428	13,337
25-34	12.3	1.4	9.4	15.1	845	23,273
≥35	8.3	2.3	3.8	12.7	256	4,350
Annual Household Income*						,
<\$15K	15.8	1.9	12.1	19.5	682	21,184
≥\$15K to <\$25K	12.0	2.5	7.1	17.0	265	7,165
>\$25K to <\$50K	13.3	2.8	7.8	18.9	268	7,955
 ≥\$50K	8.0	1.5	5.0	10.9	427	8,139
Education (years)						,
<12	11.5	2.0	7.5	15.5	443	10,646
12	14.2	2.1	10.1	18.3	474	14,954
>12	11.5	1.4	8.8	14.2	845	20,793
Marital Status <sup>†</sup>						-,
Married	10.1	1.2	7.7	12.5	969	22,249
Unmarried	15.1	1.7	11.8	18.5	794	24,144
Medicaid Recipient <sup>a†</sup>					,,,	,
No	9.9	1.4	7.2	12.7	716	16,291
Yes	14.3	1.5	11.4	17.1	1,024	30,103
Border Resident				-,	-,:	,
No	12.0	1.1	9.8	14.1	1,312	39,189
Yes	14.0	2.4	9.3	18.6	451	7,205
INFANT				- 3.0	.51	. ,= 00
Birth Weight†						
Low (<2500 g)	14.3	1.8	10.8	17.8	391	4,098
Normal (>2500g)	12.1	1.1	9.9	14.2	1,372	42,296
Gestational Age	12.1	1.1	7.7	11.2	1,0 / 2	.2,2,0
<37 Weeks (preterm)	12.7	2.3	8.1	17.3	356	5,219
≥37 Weeks	12.7	1.1	10.0	14.3	1,407	41,174

<sup>&</sup>lt;sup>a</sup> Delivery paid by Medicaid.

**Respondents:** Total number of mothers who responded to this question.

<sup>\*</sup>Denotes a significant difference within the subgroup.

<sup>†</sup>Although confidence intervals overlap, p<0.05 (significant difference within the subgroup).

### **SUMMARY**

PRAMS is a rich source of data on the health of mothers and infants in Texas. Texas PRAMS data can be used to address state and national health goals such as the Texas Maternal and Child Health (MCH) State Performance Measures. Each year, Texas PRAMS data are used in preparing the Texas Title V MCH Block Grant Application and Annual Report. PRAMS supplements birth certificate data and provides information on mothers and infants that is not available elsewhere, such as pregnancy intention, barriers to prenatal care, intimate partner violence, and alcohol and tobacco use.

The 2009 Texas PRAMS Annual Report summary highlighted the fact that PRAMS data can be used to shed light on discrepancies in birth certificate data that can be further explored. Data on induced labor rates were given as an example. The 2010 PRAMS data show the same trend: the rate of induced labor as reported by Texas PRAMS moms (45 percent) is significantly higher than the rate according to 2010 birth certificate data (26 percent). As noted in the narrative, underreporting of certain data on birth certificates is a legitimate concern, and in particular, physicians may be less likely to report induced labor for women who delivered via C-section.

In 2010, DSHS received additional funding to oversample the Texas border counties. These counties are some of the poorest counties in the United States, with populations that have complex health and social issues. The data presented in this report indicate numerous health disparities when comparing border women to non-border women. Women residing in border counties were significantly more likely to report an unintended pregnancy, late entry into prenatal care and delivery via C-section. They were significantly less likely to report multivitamin/prenatal vitamin use during the month before pregnancy, but more likely to report knowledge of the benefits of folic acid. They were less likely to report safe sleep position, receiving a maternal postpartum checkup and using contraception postpartum. The results were not all negative: border women had lower rates of tobacco and alcohol use before and during pregnancy. The addition of a border oversample by Texas PRAMS is a unique and needed contribution to information on maternal and infant health in this population.

The overarching goal of Texas PRAMS is to use the data to improve maternal and infant health by raising awareness of issues and identifying groups of women that are at high risk for adverse pregnancy outcomes. PRAMS data have great potential to inform and evaluate policy and practice directed toward achieving these objectives, helping move data to action.

As mentioned previously, this report is not inclusive of all data contained in the Texas PRAMS survey, and the author encourages you to review all of the survey questions in the appendix of this report. For questions regarding the information in this report or other questions about PRAMS, contact Dorothy Mandell at 512-776-2870 or Dorothy.Mandell@dshs.state.tx.us, or visit the DSHS PRAMS webpage at: www.dshs.state.tx.us/mch/default.shtm#PRAMS2.

# APPENDIX: 2010 TEXAS PRAMS SURVEY